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California Desert Conservation Area Plan

PROGRESS
1980 1984

Evaluation and Recommendations

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1985

United States Department of the Interior

Bureau of Land Management

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
California Desert District
1695 Spruce Street
Riverside, California 92507

IN REPLY
REFER TO:

Dear Citizen:

The Desert Plan was completed in 1980 with the direct involvement of many of you - advising, commenting, reviewing, expressing concerns, and resolving conflicts. Major concerns of many of you were whether the Desert Plan would really be implemented and whether the Desert Plan would do it was intended to do. After some four years of operating under the guidance of the Desert Plan, we felt that it was time to evaluate its effectiveness.

The evaluation and recommendations which follow reflect views expressed by hundreds of people as well as BLM staff. Just as we needed your assistance in developing and implementing the Desert Plan, we needed and used the thoughts and observations of those of you who use and enjoy the desert and its resources. We sincerely thank you for your participation in developing this evaluation.

We believe the evaluation shows that the Plan has provided a workable program for managing, using, developing, and protecting desert resources. Many site-specific plans called for in the Desert Plan have been developed, especially for the management of livestock, feral burros, wildlife, and cultural resources. With the assistance of many volunteers and other agencies, many of the prescriptions of these plans have been implemented on-the-ground. The Desert Plan has demonstrated its flexibility and adaptability to changing needs through the Plan review and amendment processes completed annually.

At the same time, economics and budgetary limitations have necessitated a slowing of implementation of the Desert Plan. This slowing is reflected in on-the-ground activities, such as route designations and public contact and visitor services. And we have shifted some priorities to programs not anticipated in 1980, such as land sales and the merger between BLM and the Mineral Management Service. We have had to somewhat narrow our vision and concentrate only on key issues and needs.

Monitoring efforts likewise have been restricted by budgets; much important monitoring has been foregone in the last four years. More complete and quantitative monitoring may have revealed some desireable refinements in the Desert Plan. But what has been done and reported has been sufficient to indicate that the Desert Plan does not need major revision and that it has and will continue to serve us well in guiding desert activities.

The introduction to the Desert Plan says the Plan "will be effective if responsible citizens make it work." That is as true today as it was four years ago. Our efforts and yours need to be on continually informing the public about their lands and their resources and the mandate Congress has given us to manage them and assure their conservation.

We hope that you will find this progress evaluation to be enlightening of the achievements that we have made jointly in the last four years and of what work needs yet to be undertaken. Thank you for your interest, support, and efforts on behalf of the California Desert.

Frank DeVore
Chairman, California Desert
Advisory Council

Gerald E. Hillier
District Manager,
California Desert

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CALIFORNIA DESERT CONSERVATION AREA PLAN

PROGRESS 1980 - 1984

EVALUATION AND RECOMMENDATIONS

February 1985

Department of the Interior
Bureau of Land Management
California

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TABLE OF CONTENTS

PART I - INTRODUCTION 1

PART II - EVALUATION OF PLANNING GOALS 3

A. Cultural Resources 3
B. Native American 10
C. Wildlife 13
D. Vegetation 23
E. Wilderness 30
F. Wild Horse and Burro 33
G. Livestock Grazing 37
H. Recreation 42
I. Motorized-vehicle Access 51
J. Geology, Energy, and Mineral Resources 54
K. Energy Production and Utility Corridors 57
L. Land Tenure Adjustment 60
M. Water 64

PART III - CONCLUSIONS AND GENERAL RECOMMENDATIONS 66

APPENDIX - SUMMARY OF PUBLIC INPUT 72

PART I

INTRODUCTION

Almost four years have elapsed since adoption of the California Desert Plan in December of 1980. During this period, numerous management decisions have been made and programs initiated which are intended to further the goals established by the Plan. The purpose of this exercise is to measure the extent to which the District is meeting its commitments and to determine the effectiveness of management actions towards achieving the goals. Not enough time has passed to consider major changes in management direction. However, it is possible to look at trends since 1980 and to consider changes to improve overall performance.

The Desert Plan states that "Within two years of final adoption of a plan, BLM will have a monitoring program designed and implemented to measure the Plan's effectiveness and to specify needs for subsequent amendments or revisions." It further states that "Threshold levels will be established and monitored for key resource components in the CDCA such as threatened, endangered, rare or sensitive plant and animal species and their critical habitats."

Because of reduced funding and the need to focus the District's limited resources on other priorities, the installation of a comprehensive monitoring program has fallen far short of the expectations voiced in the Desert Plan. This progress assessment has, to the greatest degree possible, utilized available data from the few study plots which were established and the few monitoring efforts which were undertaken. However, because of the dearth of solid field data, it has been necessary to conduct many analyses based principally on personal observations by those who have been in a position to note change, such as rangers and resource specialists. A few goals are specific enough that their progress could be measured.

The goals listed under each of the Resource Elements of the Desert Plan provided the framework for the assessment. Each goal was subjected to careful analysis by resource specialists in the Resource Area Offices. The following information was recorded for each goal:

1. Type and source of data used to evaluate the goal.
2. A summary of management actions taken since 1980 to achieve the goal.

3. An analysis of the current condition or situation together with trends or changes since 1980.

4. A determination, if possible, of the causes of trends or changes, if any.

5. Recommendations for further actions needed to meet the stated goal.

6. A statement of types of information needed to monitor progress toward the goal and recommendations for obtaining the information.

7. A summary of public concerns and the concerns of other governmental agencies.

Results of the assessment in each Resource Area were presented by the Area Managers at the August 20-21, 1984, meeting of the California Desert Advisory Council at Lake Arrowhead. They presented the major findings and made recommendations to improve management efficiency.

The public was invited to participate in the assessment. Letters were sent to over 6,000 interested organizations and individuals. Only 130 responses were received. Among these were comments from 19 organizations representing the concerns of conservationists, miners, rockhounds, vehicle recreationists, homeowners, public utility companies, and government agencies. A summary of these comments is included as Appendix A.

This report is a districtwide consolidation of the individual Resource Area analyses and the public comment. The District resource specialists have summarized for each goal the monitoring techniques which have been used, the progress toward achievement of the goal, public input, and recommendations for continuing or improving progress.

The reader may wish to refer to the California Desert Plan document to become familiar with management direction which was given rather specifically under each Resource Element. In addition to the statement of goals, the Element component of the Desert Plan describes proposed actions, implementation strategy, and monitoring requirements. The goal statements in this report are an abbreviated form to reduce length and to focus on the essential part of the goal.

PART II

EVALUATION OF PLANNING GOALS

A. CULTURAL RESOURCES

Goal 1: Inventory 2,000 acres per Resource Area per year.

Monitoring Techniques - Information needed to evaluate this goal is maintained within Bureau files. Archaeologists record the number of acres inventoried on a project by project basis and report completed inventory acreage as units of accomplishment. On an annual basis, these figures are compiled by Resource Area and by District for a report to the Washington Office.

Progress - Desertwide, progress has been good, with more than 10,000 acres inventoried each year. Peak levels of inventory were recorded in fiscal year 1981 (16,995 acres). Additional inventories were completed in all offices at lower levels of intensity. Two Resource Areas, however, have reported the bulk of the acreage, and three Resource Areas have actually averaged less than 2,000 acres per year. Most reported acreage is project related and not oriented towards further research.

As the professional staffing level has dropped and as public demand for land use increased, the Bureau role in cultural resource management has changed. More and more often, inventories are being conducted by consultants for Bureau review. Bureau personnel are more involved in technical document review and less in field work. Inventories are proceeding apace, without complete reporting by the Bureau.

Public Input - Public concern regarding this goal is low. The main concern is among archaeologists, who encourage scientific documentation through inventory.

Recommendations - The Bureau should develop a mechanism to accurately report inventory acreage completed by consultant firms. Two methods are feasible: 1) modify the existing permit reporting systems to assure accurate acreage reporting, or 2) develop an independent inventory reporting system keyed to project documentation.

CDCA will assure greater protection of cultural resources in the future.

Public Input - Low public input, except in the Needles Resource Area, suggests that the general public has little overall awareness of the cultural resources program. Public comment and response is usually limited to specific issues and is largely supportive of aggressive cultural resource management.

Recommendations - Monitoring of all ACEC's has been initiated. Implementation of existing plans should be followed closely, and an annual report on the status of implementation and the general condition of each ACEC should be prepared. Monitoring should include photo trend plots and site specific methods as well as field checks by specialists and rangers. Wherever feasible, this effort should be extended to other significant sites. Protective facilities are short term, stop-gap measures; long term success in the program depends on effective public education and cooperation.

Efforts to implement management prescriptions should be increased. Priority for implementation should be based on the results of the annual monitoring. Funding priority should be directed to development of protective facilities, public education, and acquisition of lands needed for effective management.

Goal 3: Ensure that cultural and paleontological resources are given full consideration in planning and management decisions.

Monitoring Techniques - Information available for the evaluation was taken from environmental assessments, environmental impact statements, records of decision, and management plans. Staff perceptions were also incorporated.

Progress - Paleontological resources are not given consideration in the decision making process in any systematic manner. In large part, this has been due to a lack of staff capability and a lack of formal direction concerning the paleontology program.

Progress in meeting the goal is extremely difficult to assess within the cultural program. Staff perceptions range from the extremely negative to the extremely positive. Overall, it appears that cultural resources consideration in the decision making process is stable and adequate. Positive aspects include support for avoidance or mitigation of direct impacts and support for the State Historic Preservation Officer consultation process. Negative aspects include a perceived failure to follow through with adequate compliance of avoidance and mitigation measures and an inconsistent approach to consideration of indirect impacts.

Public Input - Overall public response is low and related to specific planning and management decisions. Public input is divided between approval and disapproval of cultural resource consideration in the decision making process. Some members of the public have indicated that the Bureau's consideration of cultural resources in the decision making process is limited to the requirements of law.

Recommendations - A detailed evaluation of the cultural resource sections of environmental assessments, management plans, and records of decision should be conducted. The review should assess consistency and provide a basis from which to begin future evaluations.

Compliance and follow-up on avoidance and mitigation measures accepted in records of decision should be executed. Through written direction, the Bureau responsibility to consider both direct and indirect impacts to cultural resources should be reemphasized.

The Bureau should institute a paleontology program which provides direction concerning the proper consideration and treatment of paleontological resources.

Goal 4: Manage cultural and paleontological resources so that their scientific and socio-cultural values are maintained.

Monitoring Techniques - Available information includes office files, monitoring data for some ACEC's, ranger patrol logs, field checks, photographs (before and after), and general staff perceptions. The available data pertain to specific locations, however, and cannot be used to extrapolate firm conclusions on a Desertwide basis. No data are available for paleontological resources, and many portions of the desert have no measurable data for cultural resources.

Progress - No progress has been measured for paleontological resources. Scientific and socio-cultural values associated with cultural resources in the desert must be regarded as in a slightly declining trend. The general perception of staff is that we are losing sites with research potential due to vandalism, development, and off-road vehicle activity. The Bureau record pertaining to approved actions is good, and loss of significant resources in approved projects has been countered with adequate data recovery programs.

Another factor, perhaps equally important, is the lack of a series of regional research designs to define the key scientific values of CDCA cultural resources and to integrate research efforts undertaken at various locations.

Public Input - Overall input from the public on this goal is very low. Public awareness of the goal and the efforts needed to meet the goal are perceived as being low. Unlike Bureau management decisions, which are publicized, the scientific and socio-cultural values of the cultural resource data base are not highly visible; thus most response on this goal is project or issue driven and shows mainly among archaeologists, historians, paleontologists, and a few concerned members of the public. Specific public comments which can be related to this goal are generally negative.

Recommendations - In order to meet this goal, the Bureau should take the initiative in an aggressive program of cultural resources management. Funding and personnel constraints in recent years have forced the Bureau into a reactive mode, dealing with resources only on a project by project basis. A wider ranging approach designed to enhance the resource, rather than to merely respond to outside pressures, would be beneficial. Baseline inventory data, program direction, and staff capability should be developed to enable the Bureau to meet this goal.

Goal 5: Ensure that Bureau activities avoid inadvertent damage to cultural and paleontological resources.

Monitoring Techniques - Available data were obtained from office files, environmental assessments, project files, ranger patrol logs, and photos.

Progress - The California Desert District is doing a good job in guarding against inadvertent damage to cultural resources overall. Some problem areas have been identified concerning unregulated use of off-road vehicles, mining under Notice of Intent, and grazing. Absence of any systematic field monitoring, however, makes quantification of the problem impossible.

Public Input - Public comment on this goal indicates that members of the concerned, cultural resource oriented public believe that the Bureau is not doing an adequate job to meet the stated goal. The problem of uncontrolled and unmonitored off-road vehicle use is most commonly cited. Specific issues noted by the public have included scheduled off-road vehicle events as well as free-play.

Recommendations - Lack of field data on a project by project basis has made evaluation difficult. Institution of a post-project compliance system, where some percentage of all types of surface disturbing activities are monitored, would produce good data for future management action. Strengthening and consistently using the technician program would increase inventory, compliance, and monitoring capabilities.

Completion and implementation of the route designation program, with adequate signing and enforcement, will help to minimize off-road vehicle impacts.

Goal 6: Achieve proper data recovery where adverse impacts cannot be avoided.

Monitoring Techniques - Available data are from existing Bureau files; project files, data recovery plans, and mitigation reports provide primary information. Field checks provide supplemental data. No data are available on paleontological work.

Progress - Data recovery activities have been minimal since inception of the Desert Plan. This is primarily due to Bureau efforts to work with project proponents to plan for avoidance. Exceptions in recent years have been the mitigation of impacts for major projects. Of the 130 sites subjected to data recovery since 1980, more than 100 have been the direct result of powerline construction.

Most data recovery efforts have been successfully completed; however, final reports on the results of these efforts are often quite late. This is due to a lack of control and guidance by the Bureau. Almost all data recovery is financed by project proponents, and Bureau involvement is often indirect. Even where data has been recovered, additions to the base of knowledge are often not appreciable due to the resources being of little value or available field and laboratory techniques being inadequate.

Paleontological data recovery efforts have been sporadic and have been due primarily to volunteer labor and expertise.

Public Input - Public comments which can be related to this goal are rare. Input, both formal and informal, is usually project specific and received during the development phase of data recovery plans. Comments of the State Historic Preservation Officer and the Advisory Council on Historic Preservation are solicited during consultation required under existing statutes.

Recommendations - The Bureau should use performance bonds with archaeological contractors to assure timely completion of both field work and final reports. All data recovery by Bureau staff should be restricted to projects where the Bureau has adequate staff time, facilities, and expertise. In-house data recovery projects should be discouraged and allowed only when there are no other alternatives to resource destruction. The Bureau should consider all data recovery proposals carefully to assure the need and effectiveness of each proposal. District and State Office personnel should be closely involved in review of data recovery proposals to assure consistency and effectiveness on a regional basis.

B. NATIVE AMERICAN

Goal 1: Manage and protect Native American values wherever prudent and feasible.

Monitoring Techniques - Data available for evaluation are extremely diverse and reflect the differences in resources, baseline data, and field capability. Regular patrol by rangers and other personnel occurs in a few ACEC's with known resource conflicts. Informant interviews, undertaken to provide data for inclusion in ACEC plans and in project specific environmental assessments, have been valuable but limited in their application. The majority of the available information is based on existing data in Bureau files, the existing literature, historic documents, informal Native American contacts, and staff perception.

Progress - Desertwide, the condition of Native American values is perceived as being in a downward trend. This is due to increasing levels of use in sensitive areas. It reflects both an increase in development on public land and adjoining private land as well as an increase in public visitation. Stability has been achieved in a few specific locations where physical protection or formal management recognition have been achieved.

Public Input - Public comment, in addition to specific letters, includes input from Native Americans obtained both on a formal and informal basis. Public opinion is mixed and often related to specific issues. Throughout the desert, opinion tends to be slightly negative. There is a perception that Native American values are deteriorating as development and use of land intensify. On specific actions where Native American values have been considered, Native American and public response has been highly supportive.

Recommendations - In order to successfully achieve the goal, regular and consistent data on condition, trend, and causes for any identified changes should be acquired. An annual report should be prepared for all Native American ACEC's and other known areas of concern. Management of areas with downward trend should be modified to rectify the situation wherever prudent and feasible.

Goal 2: Establish communications between the Bureau and tribal governments and contact them in those instances where Bureau actions may affect their interests.

Monitoring Techniques - Most of the information available for the evaluation was obtained from project files, which indicate whether or not Native Americans were contacted and whether or not concerns were addressed in the decision making process on a case by case basis. This data base was supplemented to some extent by special files on contacts maintained by specialists and by the personal knowledge and perception of the specialists.

Progress - On an overall basis, progress towards the goal has been good. Resource Areas have averaged between 12 and 25 documented contacts with pertinent individuals and tribal governments per year. Prior to the Desert Plan, these contacts were sporadic at best. At the present time, contacts are being made with pertinent groups and individuals on all major actions and on nearly every action of known concern to the Native American community. Both the number of contacts and the quality of communication is perceived as improving.

The American Indian Religious Freedom Act (AIRFA) was passed prior to approval of the Desert Plan. The basic concepts of the Act have been incorporated into the Archaeological Resources Protection Act and into a memorandum of understanding between the Bureau, the California State Historic Preservation Office, and the Governor's Native American Heritage Commission. These laws and agreements have provided a framework for Bureau coordination with Indian tribes and individual Native Americans and have increased Bureau capabilities toward attaining the goal.

Public Input - Public input which can be assigned to this goal is voiced primarily by the Indian community. As an issue, the public has little awareness of this aspect of Bureau management. Project proponents and applicants, in particular, have had difficulty in relating to the Bureau's mandate to meet this goal. Overall, public response to Bureau efforts has been favorable. Some tribes have expressed concern that their recommendations, though duly noted and documented, rarely affect the Bureau's final decision on a project by project basis. There is a concern by some tribes that they are not involved in decisions early enough in the process.

Recommendations - Many decisions are made by the Bureau without Native American input, and there is a possibility that some of these decisions may affect Native American interests. Current staffing levels preclude involving Native Americans in all aspects of the Bureau decision making process related to their interests. Without adding staff, coordination and communication can only be improved through improving the quality of the contacts we do make. Resource Area and District personnel should meet with key tribal representatives on a regular basis. Such meetings would serve to improve the general flow of information and could be used to refine our knowledge of Indian concerns. As our knowledge increases, our limited contacts can be planned to address the areas and issues of most concern to the Native American community. At the same time, the Bureau should seek for agreement on cases, issues, and actions which are of no concern to the tribes.

A greater effort should be made to educate the general public and project proponents about this aspect of the Bureau's mandate.

C. WILDLIFE

Goal 1: Stabilize and improve where possible the status of federally and State-listed species.

Monitoring Techniques - The CDCA provides habitat for five federally endangered and one federally threatened animal species all of which are also State-listed (Table 1). In total the CDCA has ten State-listed endangered and seven State-listed rare animal species (Table 1). Some degree of monitoring occurs regularly for almost all of these species but not necessarily on public lands in the CDCA which provide only incidental habitat for some species (e.g., Yellow-billed Cuckoo, Least Bell's Vireo, Bald Eagle). The Department of Fish and Game as well as other Federal and State agencies are also active in monitoring these species in the desert.

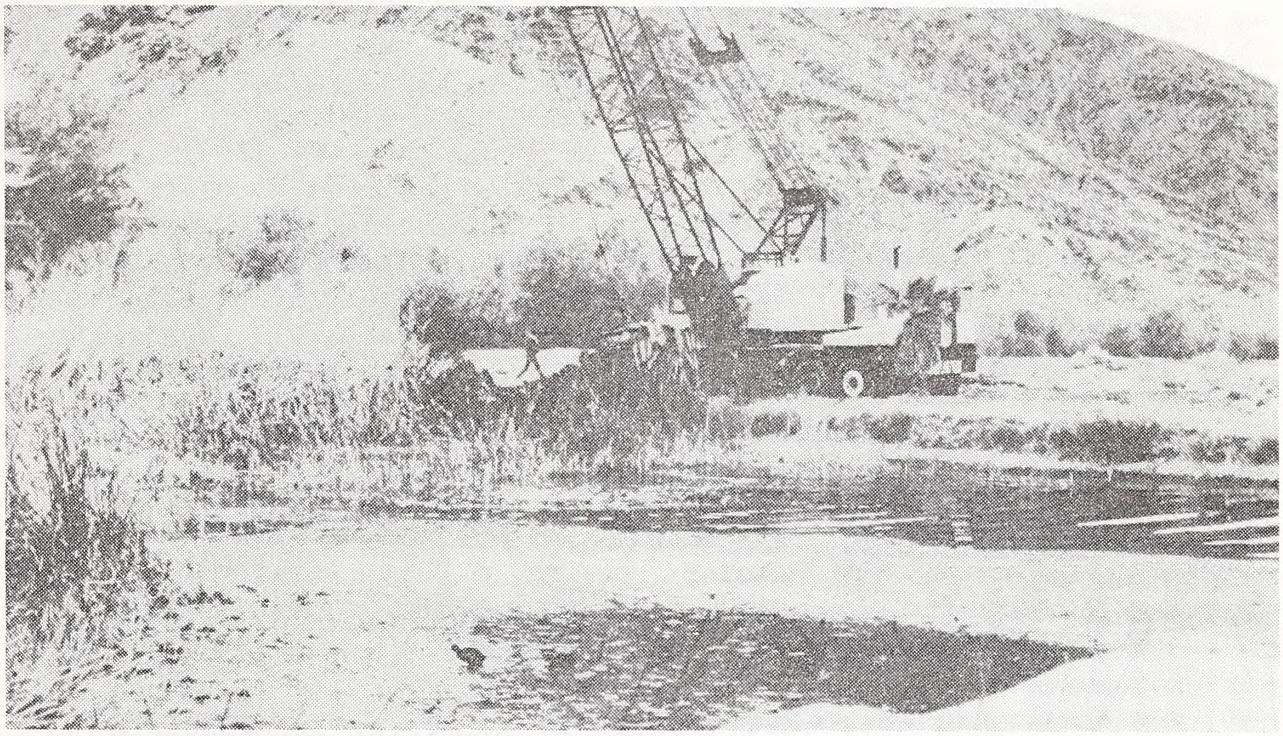
Monitoring Techniques are highly species-specific. Some species have been censused on a regular basis. Some have had population studies and conflict studies. Habitat surveys have been contracted for a few. Each species will be addressed individually in the discussion of progress in achieving the goal.

Table 1. Federal and State-listed wildlife species in the CDCA.

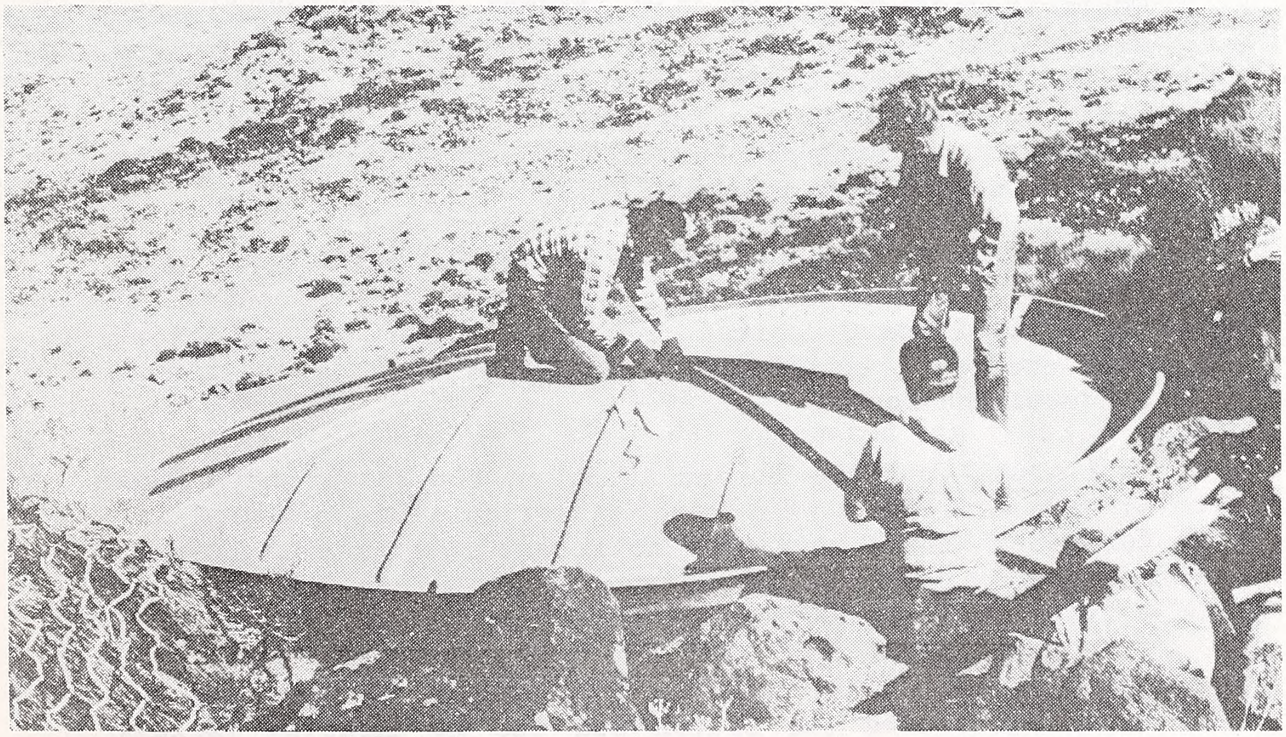
Species	Status	
	Federal	State
Mohave chub	Endangered	Endangered
Desert pupfish	Proposed	Endangered
Desert slender salamander	Endangered	Endangered
Tehachapi slender salamander		Rare
Magic gecko		Rare
Coachella Vly fringe-toed lizard	Threatened	Endangered
Bald Eagle	Endangered	Endangered
California Condor	Endangered	Endangered
Yuma Clapper Rail	Endangered	Rare
California Black Rail		Rare
California Yellow-billed Cuckoo		Rare
Least Bell's Vireo		Endangered
Inyo Brown Towhee	Proposed	Endangered
Mohave ground squirrel		Rare
Amargosa vole	Endangered	Endangered
Peninsular bighorn sheep		Rare

Progress - Many of the federally and State-listed species receive active management and habitat development. The habitat of all, except the Mohave ground squirrel, have protective management in ACEC's and/or Wilderness Study Areas. In compliance with Federal law, the Bureau consults with the U. S. Fish and Wildlife Service on all projects which may affect a federally listed species. No activities are permitted which will threaten the continued existence of one of these species. In 1983, the Bureau instituted similar conference procedures with the California Department of Fish and Game on projects or activities that may affect a State-listed species. Following is a discussion of progress since 1980 in the management of each of the 16 federally and State-listed species occurring on public lands in the CDCA:

> Mohave chub - The Bureau manages two ponds containing Mohave chub at Soda Springs. Around 1980, encroaching cattails were removed form the larger pond; cattail encroachment as well as sedimentation has continued. To counter this habitat deterioration, about 1/3 of the large pond is being dredged soon to remove sediment.
>
> The smaller pond experiences annual ditch-grass (*Ruppia maritima*) blooms in the summer with die-offs in the fall. Although possibly unrelated, there have been two large die-offs of chub in this pond. To prevent buildup of decaying vegetation, several tons of ditch-grass were removed by hand on at least one occasion.
>
> No recent population estimates have been made, but it is believed that the populations have declined in recent years. Several life history studies have been conducted, and a new spawning requirement study has been contracted. Fortunately, a good population has been established at China Lake Naval Weapons Center and a small population has been established at the Desert Research Center on land leased from the Bureau by the Barstow School District. Construction of a second pond is underway at the latter site to increase pond maintenance capabilities. In addition, the Bureau has contracted an evaluation of the feasibility of introducing chub to several other ponds on public lands.
>
> Desert pupfish - An ACEC plan has been completed for a population concentration at Salt Creek, but, unfortunately, invasion of exotic fish species have made maintenance of desert pupfish populations difficult if not impossible. Populations have declined also in the other major population concentration at San Sebastian Marsh due to flooding and perhaps tamarisk invasion and agricultural



Lake Tuende at Soda Springs is a major habitat for the endangered Mohave chub. In December 1984, the Bureau dredged the pond to remove sedimentation and encroaching cattails.



In 1984, an artificial water catchment to benefit upland gamebirds was placed on Black Mountain in Kern County. The project was a cooperative effort with funding from the Kern County Wildlife Commission and assistance from Fish and Game and several volunteers.

development. Populations in shoreline pools are unknown. Some survey work has been conducted by the Fish and Game Department with the assistance of Bureau biologists. Federal listing as an endangered species has been officially proposed.

Desert slender salamander - The only confirmed population is on land managed by California Department of Fish and Game. A Bureau survey of potential habitats in 1980-81 uncovered another nearby salamander population, but its taxonomic status has not yet been determined. This population occurs in a remote area of a Wilderness Study Area

Tehachapi slender salamander - The presence of this species on Bureau lands has not been confirmed. No surveys have been conducted.

Magic gecko - This species has been discovered only recently, and only a few specimens have been found. Surveys by the Bureau in 1980 failed to locate any additional specimens. The habitat is generally inaccessible and presumed to be in fair and stable condition.

Coachella Valley fringe-toed lizard - A habitat conservation plan is being developed to preserve this species which is suffering from agricultural and urban encroachment. The Bureau and other agencies are working to establish a major ecosystem preserve within the species' habitat. The Bureau has designated the Willow Hole ACEC to protect another portion of the habitat. Some studies have been conducted by other agencies.

Bald Eagle - A small number of Bald Eagles spend some winters at Haiwee Reservoir. The lake is not considered to be significant habitat, and Bureau lands at the Reservoir are being transferred to the Los Angeles Department of Water and Power.

California Condor - Bureau lands on the far western edge of the CDCA have been used historically by condors for foraging. There have been no recent confirmed sightings. Habitat in this area has deteriorated due to off-road vehicle use and wind energy development.

Yuma Clapper Rail - Breeding populations occur at several locations around the Salton Sea and in Imperial Valley. Some are known to use Bureau lands, but precise numbers are unknown. Habitat is believed to be in poor condition and declining.

California Black Rail - Same as Yuma Clapper Rail.

Yellow-billed Cuckoo - Few sightings have been made in the CDCA. Individual pairs may occasionally breed on Bureau lands at Amargosa Canyon, which is an ACEC.

Least Bell's Vireo - This subspecies is known from Bureau lands in the CDCA only at Willow Hole, Big Morongo, and Amargosa Canyon. All are in ACEC's. Management plans have been prepared and habitat protection measures taken for Amargosa Canyon and Big Morongo. The Major threat to these isolated populations is from nest parasitism by Brown-headed Cowbirds.

Inyo Brown Towhee - This subspecies is found in the Argus Range and vicinity. An ACEC has been designated for habitat managed by the Bureau, but no plan has been prepared yet. A study sponsored by the Naval Weapons Center is underway. Total removal of burros from this area will help maintain necessary riparian habitat. The major threat to habitat is from water diversions by miners. The species has been officially proposed as a threatened species.

Mohave ground squirrel - This fairly widespread species occurs within several ACEC's; only Jawbone-Butterbread ACEC has a management plan. No special habitat development projects have been proposed or implemented. Although generally protected through project stipulations and ranger enforcement of off-road vehicle restrictions, habitat quality is believed to be deteriorating due to livestock grazing, off-road vehicle free-play and racing, mining, and other surface disturbing activities.

Amargosa vole - The Amargosa vole was previously known only from Grimshaw Marsh and adjacent areas along the Amargosa River. This area has been designated an ACEC, and a management plan was prepared in 1983. Bureau surveys in 1984 extended the known range into the northern part of Amargosa Canyon, also an ACEC. Habitat is in good condition and is well protected except from natural flooding. Geothermal leasing has occurred nearby, but water table and water quality monitoring will be performed with future exploration or development, if any. The species was added to the Federal list of endangered species in 1984.

Peninsular bighorn sheep - The northern population (Santa Rosa Mountains) is apparently declining due to low reproduction resulting from diseases; studies are being conducted by private parties. Potential residential development is a concern, but has not been a serious problem yet. A habitat management plan has been completed.

For the southern populations (In-Ko-Pah Mountains, Jacumba Mountains) a habitat management plan has also been prepared. The effects of off-road vehicles on bighorn sheep are being studied. Populations are good and static or increasing.

Public Input - There is generally little public comment regarding federally and State-listed species. The Coachella Valley fringe-toed lizard has received considerable media attention due to preserve establishment activities and conflicts with housing development in the Valley. In the review of conflicting proposed projects, there has been concern expressed for Peninsular bighorn sheep.

Recommendations - Wherever appropriate, protective plans containing habitat development prescriptions and monitoring plans should be prepared and implemented. Full consideration of these species should be continued in the authorization of conflicting activities and projects.

Goal 2: Manage sensitive species and their habitats so as to minimize the potential for Federal listing.

Monitoring Techniques - There are nine species designated as sensitive by the Bureau for California:

Shoshone Cave whip-scorpion
Amargosa speckled dace
Amargosa River pupfish
Inyo Mountains salamander
San Sebastian leopard frog
Desert tortoise
Flat-tailed horned lizard
Banded gila monster
Nelson's bighorn sheep

As with Federal and State-listed species, monitoring is species-specific, but includes population surveys, conflict studies, and habitat assessments.

Progress - Three species have been proposed for Federal listing: Amargosa vole, desert pupfish, and Inyo Brown Towhee. All three are already listed as endangered by the State and were addressed in Goal 1. Following is a discussion of each of the sensitive species:

Shoshone Cave whip-scorpion - This invertebrate has been found in only one cave in the eastern Mojave Desert. A habitat management plan has been prepared for the area. The area was changed from land-use Class M (Moderate Use) to Class L (Limited Use). Surveys of four caves in 1983 failed to locate any whip-scorpions.

Amargosa speckled dace - An ACEC management plan has been completed for Amargosa Canyon, one of the major concentration areas for this subspecies. Surveys were conducted in 1981 to analyze the population distribution. Exotic fish and bullfrogs and flooding are the main threats. Populations are believed to be fair and stable.

Amargosa River pupfish - Surveyed along with Amargosa speckled dace in 1981, Amargosa River pupfish were abundant in the Amargosa Canyon area and are believed to be stable.

Inyo Mountains salamander - No surveys have been conducted since the Desert Plan inventory. The species occurs in remote and rugged canyons on the east slopes of the Inyo Mountains. The area is a suitable Wilderness Study Area. Water diversions for mining operations pose a potential threat to small but critical wetlands.

San Sebastian leopard frog - Despite survey attempts, no sightings have been made for several years. One temporary breeding pond was built in 1981, but no leopard frogs used it. It is suspected that this population has been extirpated. The habitat is in generally poor condition and declining due to tamarisk invasion and flooding.

Desert tortoise - There are indications that some populations are declining; among these indications are unstable age distribution and high mortality rates. A monitoring program of censusing five of fifteen permanent trend plots per year on a three-year rotation has been designed to yield direct population trends as well as sex ratios and age distributions. Unfortunately, due to a lack of funds, permanent trend plot assessments have not been performed in recent years.

Due to the indications of current population declines, the Desert Tortoise Council has proposed that the Fish and Game Commission designate the tortoise as a State rare species.

Since 1980 there have been exceptionally good and exceptionally poor forage production years. In the spring of 1984, no sheep grazing was authorized anywhere in the desert due to forage below the 250 pounds per acre required under the Desert Plan. Although there is no quantifiable data, tortoise habitat quality is believed to be deteriorating in the western Mojave Desert due to the cumulative effects of off-road vehicle racing and free-play, road construction, mining, and other surface disturbing activities.

Studies on a wide range of topics including natality, survivorship, predation, and other mortality factors are underway.

Flat-tailed horned lizard - ACEC plans and habitat management plans have been prepared for the major populations on East Mesa and in Yuha Basin. Some transects have been established to assess long-term trends. Habitat condition is believed to be fair and stable on East Mesa but is poor and declining in Yuha Basin due to transmission line construction and off-road vehicle use.

Banded gila monster - Recent surveys have located gila monsters in the Kingston Range and the Piute Range. These, together with scattered reports, indicate that the gila monster is resident in California. Population size is unknown. Suspected habitats are protected in ACEC's and Wilderness Study Areas and are not subjected to serious conflicts.

Nelson's bighorn sheep - Most bighorn habitat is contained in Wilderness Study Areas and is generally protected from human disturbance. There are some remaining conflicts with livestock, especially around critical water sources. Some conflicts may result from mining operations in remote areas. Burro removal has made significant progress in reducing that conflict, especially in the northern part of the CDCA.

Reductions in conflicts together with the continuing installation of big game guzzlers, improvement of springs, and good rainfall for several years running (except Spring of 1984) has resulted in very large increases in some herds. To take advantage of these increases and avoid exceeding carrying capacity, several transplants have been undertaken to reestablish herds in depleted ranges. Censuses are lacking in the northern herds where burro removal has been greatest.

Increases in herd sizes, natural movement into new ranges, and successful reestablishment through transplants indicate good habitat condition and herd health in most of the desert.

Public Input - There has been a considerable amount of public comment received on desert tortoises and bighorn sheep. Public comment on proposed projects often stresses impacts on these two species.

Recommendations - Investigations on basic life history elements of several species should continue to receive a high priority. The tortoise permanent trend plot assessments should be resumed so that trends can be established within ten years. The large exclosure at Fremont Peak needs baseline assessments of vegetation and tortoises in order to later assess the impacts of sheep grazing. The cumulative effects on Mohave ground squirrel and desert tortoise of small habitat losses and degradation should be evaluated. Additional tortoise sign transects should be conducted to better define current population density estimates. A desertwide survey of bighorn sheep is overdue. Implementation of ACEC plans and habitat management plans should receive a high priority.

Goals 3, 4, 5, and 6: Manage representative, unique, and sensitive habitats on an ecosystem basis maintaining the integrity of the natural systems and protecting the unique biological characteristics.

Monitoring Techniques - To accomplish these goals, the Desert Plan listed and mapped 67 wildlife areas which were to have management plans. As of October 1984, 23 of these plans had been prepared; monitoring prescriptions form an element of each of these plans. Each wildlife ACEC is to have an annual monitoring report. These have been prepared sporadically, but recent changes will increase the completion rate.

Progress - Implementation of most ACEC plans and habitat management plans is well underway and completed (aside from ongoing monitoring and maintenance) for some. Habitat development has received a priority and has progressed well. Some prescribed studies have been done, but funding limitations will stretch out the completion of many. Land acquisition goals in these plans will take many years to meet. Many plans contain restrictions or stipulations to eliminate or reduce conflicts between uses and habitat quality. Many plans prescribe increased ranger patrol. Although ranger patrols have been increased in the areas with the greatest need, the total commitments are beyond the capabilities of our current ranger force.

Public Input - Areas with sensitive or unique wildlife habitat are often mentioned by the public. Comments frequently address conflicting uses and are sometimes quite specific.

Recommendations - Preparation of management plans should continue at a pace which allows some staff time for implementation, maintenance, and monitoring. The last should receive increased emphasis. Photo reconnaissance flights would be a useful monitoring tool. Ranger patrol of especially sensitive areas should be increased to further reduce conflicts.

An ACEC at Big Sand Springs has been designated to protect and enhance the habitat of Death Valley milk-vetch. The species has declined due to impacts from burros and off-road vehicles. A protective exclosure has been partially constructed.

Public Input - Concern has been expressed for the consideration of listed plants. Most concern is for reducing or eliminating impacts from various desert uses, such as livestock grazing, off-road vehicle free-play and racing, and mining.

Recommendations - There is a need to establish systematic monitoring for all 11 of the federally and State-listed plants in the CDCA. Monitoring should include photo trend plots as well as a quantitative method such as line or belt transects.

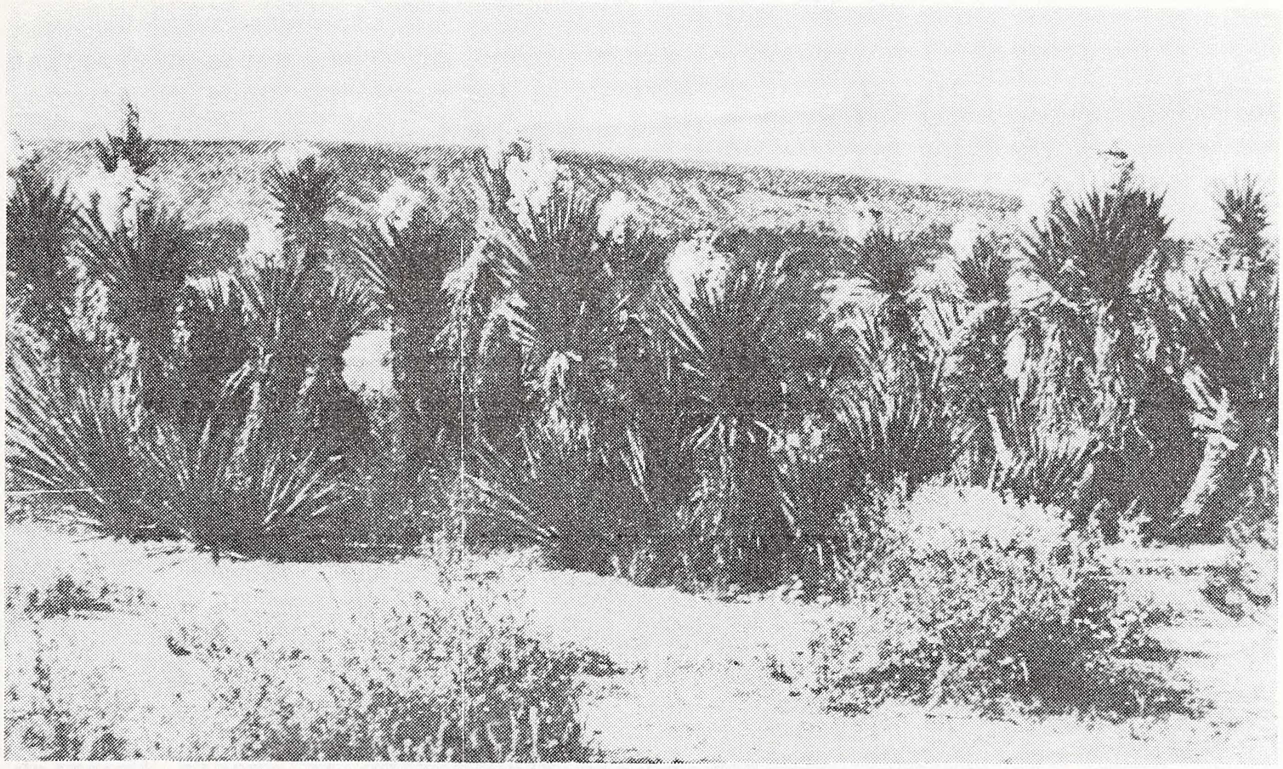
Goal 2: Preserve Unusual Plant Assemblages (UPA's). (See Map 6 of Desert Plan.) Note: Wetland and riparian UPA's are not addressed in the following discussion, since they are the subject of Goal 3.

Monitoring Techniques - Five UPA's (Yuha Desert, Johnson Valley/Lucerne Valley, Creosote Bush Clones, Fry Mountain Ancient Yucca Clones, and Eureka Dunes) occur in ACEC's with monitoring plans. All other UPA's receive no monitoring or are monitored only by ranger reconnaissance or occasional visual inspection by a staff botanist. The latter usually is associated with an environmental assessment for a proposed project or activity. A large, square-mile exclosure has been constructed to monitor the effects of livestock grazing on the Western Mojave Desert Saltbush UPA.

Progress - Protective exclosures have been constructed for populations of Creosote Bush Clones and Yucca Clones. Eureka Dunes will soon receive a protective barricade. The designation of closed routes is not completed, but preliminary planning indicates that Chuckwalla Bench will benefit from reduced route use. Several other UPA's (e.g., Eureka Dunes, Kelso Dunes) are in closed areas, and many other UPA's are in Wilderness Study Areas, which are generally closed to vehicles.

Public Input - Public concern has centered around a few UPA's such as Imperial Sand Dunes, Chuckwalla Bench, and Ancient Creosote Bush Clones. Concern for other UPA's is sometimes expressed when new conflicting uses or activities are proposed.

Recommendations - Each UPA needs a monitoring program. Photo trend plots may be sufficient for some UPA's, while others should employ quantifiable methods in order to determine the nature and degree of conflicts. Assessment of condition and trend should be periodic but not necessarily annual.



(Above) In 1983, a 5-acre fenced exclosure was erected at the Upper Johnson Valley Yucca Rings ACEC to protect examples of the unusual yucca rings.

(Left) In 1983, exotic tamarisk trees were removed at Corn Springs in eastern Riverside County. They were replaced with native mesquite seedlings which will be superior in providing food and cover for the abundant wildife found at the spring.

Goal 3: Protect and enhance wetland and riparian areas.

Monitoring Techniques - Since many of the wetland/riparian areas in the CDCA are in ACEC's, a large number have monitoring programs. Monitoring varies from multiple transects (e.g., Amargosa Canyon) to photo trend plots (e.g., Corn Springs). Ranger reconnaissance is good due to the recognized sensitivity and high level of use occurring in wetland/riparian areas.

Progress - Wetland/riparian areas are zones of concentrated use, attracting burros, livestock, campers, and miners. Burro reduction has removed large numbers from wetland/riparian areas, especially in the northern portion of the CDCA; however, the effects have not been assessed. Water diversions by miners and livestock operators have degraded some riparian areas, but the institution of the mining plan approval process has increased the Bureau's ability to lessen the effects of mining.

ACEC plans have been written for 16 ACEC's which contain significant wetland/riparian areas (Table 2). Some implementation has occurred and enhanced the vegetative resource in those areas. A well planned volunteer and Bureau staff effort has made significant progress in the eradication of exotic tamarisk from selected riparian areas; cottonwood and mesquite trees have been replanted in some of these areas. Tamarisk growth remains a very serious problem along the Mojave River and in San Sebastian Marsh.

Table 2. ACEC's with significant wetland and riparian areas for which a management plan has been completed.

ACEC	Wetland/riparian enhancement and protection projects
Saline Valley	Burro exclosure; tamarisk removal
Darwin Falls	Vehicle barricade
Surprise Cyn	
Grimshaw Lake	
Amargosa Cyn	Tamarisk removal; veh barricade; route closures
Salt Ck Hills	
Jawbone-Bttrbrd	Route closures
Ft Piute	Tam removal, veh barricade; cottonwood planting
Harper Dry Lake	Tamarisk removal
Soda Springs	Pond dredging
Afton Cyn	Tamarisk removal
Whitewater Cyn	
Big Morongo	Tamarisk removal; vehicle barricade
Corn Springs	Tamarisk removal; mesquite planting
Chuckwalla Bench	Tamarisk removal; spring development
Salt Ck-Pupfish	

Public Input - Little public concern has been expressed.

Recommendations - A more rigorous monitoring system is needed. Many key wetland/riparian areas are receiving monitoring, but the extreme sensitivity and value of all wetland/riparian areas makes their protection imperative. There should be continued emphasis on protective measures and tamarisk eradication.

Goal 4: Maintain the Desert's vegetative resource while providing for various consumptive uses on a sustained yield basis.

Monitoring Techniques - The major consumptive use of vegetation in the CDCA is livestock grazing. Methods for the monitoring of forage condition and trend are prescribed in allotment management plans. See Goal 2 of the Livestock Grazing (Section G) for a description of this monitoring. Several exclosures have been constructed in livestock grazing areas, but their use in assessing vegetation trends has been negligible. Fuelwood and vegetative plant part sales are recorded, but there has been no field assessment of the effects.

Progress - There has been some improvement in vegetation condition for livestock forage purposes. (See Section G, Goal 2.) The large reductions in numbers of burros has or presumably will result in improvement of general vegetation condition, especially around watering sources; however, no monitoring is taking place to measure this improvement. Vegetative communities in Wilderness Study Areas are being protected from human development, but again no monitoring is being performed except where these Wilderness Study Areas overlap grazing allotments. Other areas, especially lowlands, in the desert are experiencing some declines in general vegetation due to human disturbances, such as off-road vehicle free-play and racing, mining, and geothermal and wind energy development. For the most part, these conflicts are not being monitored. The small demand for fuelwood and plant parts is being met within vegetative productivity capabilities.

Public Input - There is some public concern about the general condition of the vegetative resource. These concerns are generally voiced in opposition to uses such as livestock grazing, off-road vehicle free-play and racing, and burros. Although some concern is expressed for the vegetation as a resource in its own right, more often the concern is for vegetation as a habitat component for wildlife, especially desert tortoises and bighorn sheep.

Recommendations - Burro removal should continue until population goals are achieved; monitoring of vegetation recovery in high burro use areas is opportune and should be implemented to support burro reduction decisions. Increased emphasis should be placed on the assessment of vegetation trends at exclosures already constructed; additional monitoring exclosures should be established in livestock grazing and off-road vehicle areas.

Goal 5: Manipulate plant habitats or vegetation by changing plant species composition, density, and/or cover to accomplish specific resource goals.

Monitoring Techniques - The amount (i.e., acres) of vegetation manipulated is compiled annually. Annual monitoring reports for ACEC's indicate the amount of vegetation manipulation conducted during the previous year. Monitoring of the results of vegetation manipulation efforts has been by visual inspection or photo trend plots.

Progress - Specific vegetation manipulation needs are described in various planning documents such as allotment management plans, wildlife habitat management plans, and ACEC management plans. There has been no desertwide assessment of the level of need for various types of manipulation. Following is a discussion of the vegetation manipulation activities since institution of the Desert Plan:

Tamarisk eradication - Tamarisk eradication efforts have taken place on about 70 acres of public land. All of this has occurred in riparian or wetland areas. Almost all has taken place in ACEC's in accordance with approved ACEC management plans. Incidental removal has occurred at several springs to enhance wildlife access or to promote growth of native trees. In most ACEC's the tamarisk eradication has been supplemented with planting of cottonwoods or mesquite. Efforts have focused on isolated riparian/wetland areas where elimination of tamarisk encroachment seemed feasible. Volunteer assistance has been instrumental in these eradication efforts. At some locations (e.g., Afton Canyon ACEC, San Sebastian ACEC), the amount of tamarisk is greater than our capacity to remove it.

Tree planting - Approximately 10 acres have been planted with cottonwoods, and 5 acres have been planted with mesquite. All of these have been in concert with the tamarisk eradication program. Cottonwood success has been very poor, but mesquite planting at Corn Springs has been very successful, undoubtedly due to the installation of an effective irrigation system.

Eradication of noxious or poisonous plants - No specific needs have been identified.

Prescribed burning - No specific needs have been identified for the CDCA.

Public Input - Due to the small amount of vegetation manipulation that has occurred, there has been little public interest or concern except by a small cadre of dedicated volunteers involved in tamarisk eradication. In review of ACEC management plans, tamarisk eradication has received strong support. The concern is often expressed that native trees are planted to replace large tamarisk trees that are removed.

Recommendations - Monitoring of vegetation manipulation efforts has been adequate for the small amount performed. A desertwide assessment of the extent of tamarisk invasion is needed.

Goal 6: Cooperate with private landholders in the commercial production of desert plants.

Monitoring Techniques - No monitoring has taken place.

Progress - The Bureau has sold some parcels (355 acres) near Desert Center for the private development of jojoba. Several land exchanges are underway which will transfer additional public lands in this area to private ownership. Development of these lands for Jojoba production will depend upon interest in the private sector.

Public Input - In the early 1980's there was considerable public inquiry into the availability of public land for development of jojoba. In the last year or two, this inquiry has dropped significantly.

Recommendations - Current efforts are sufficient to meet demand.

E. WILDERNESS

Goal 1: Provide interim management protection of CDCA Wilderness Study Areas so that wilderness values are not degraded so far as to significantly constrain the Secretary's recommendation with respect to the area's suitability or nonsuitability for preservation as wilderness.

Monitoring Techniques: Monitoring the 5.5 million acres of Wilderness Study Area in the CDCA has been limited to sporadic aerial reconnaissance flights and occasional on-the-ground surveillance. Between 1980 and the present, only 64 of the 148 WSA's have been overflown; most of these flights were joint ventures involving the monitoring of other resources. On-the-ground investigations were generally limited to areas in which violations of Interim Management Policy were suspected.

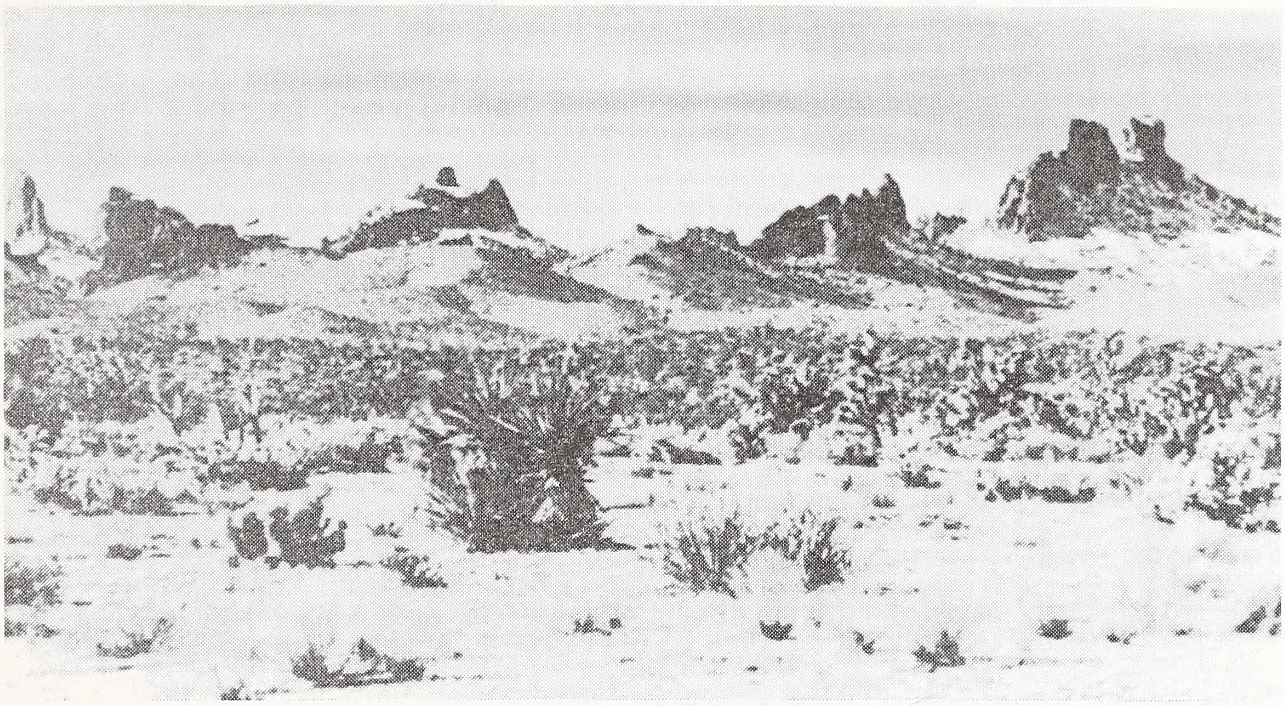
At the time the WSA's were designated (1979), the record of existing intrusions was not complete, and aerial photographs taken at various times prior to 1979 provide only a limited baseline for comparison. Therefore, the amount of impairing activity which has occurred since 1979 has been difficult to assess.

Progress - A number of unauthorized activities have occurred within Wilderness Study Areas since 1980. The Desert Ranger force has issued many verbal warnings and a limited number of citations to offenders during this period. Authorized activities number about 234 during this period. Areas damaged by unauthorized activities will be rehabilitated prior to the time that the Secretary of the Interior makes his recommendations to the President.

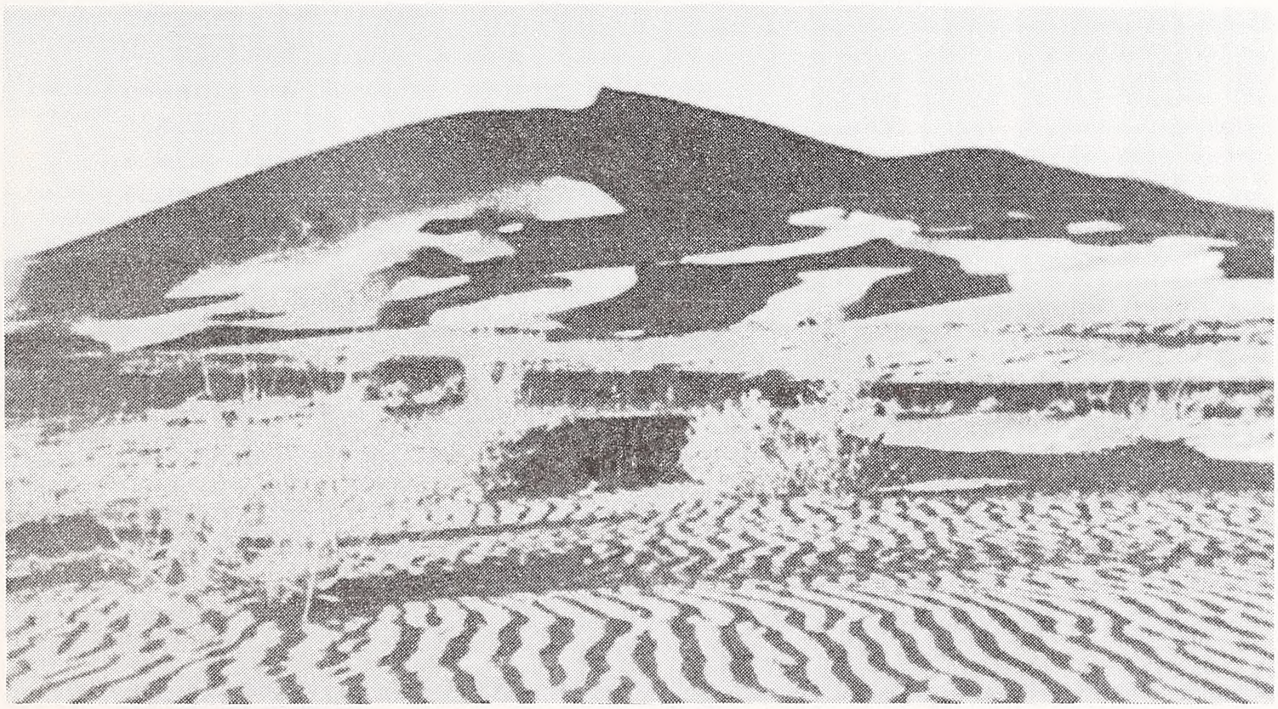
For activities authorized by the Bureau, it is estimated that there are 48 sites within WSA's which will require reclamation in order to return them to acceptable condition before the Secretary of the Interior forwards his recommendations to the President. Within suitable Wilderness Study Areas, 15 such sites have been identified; within nonsuitable Wilderness Study Areas, there are 33 such sites identified.

Major impairments, such as bladed roads, have been confined primarily to existing mining areas. The Bureau has been successful in preventing most impacts through stipulations attached to mining plans of operation and permits for competitive events and by rejection of activities which cannot comply with the Interim Management Policy.

Public Input - Concern about impairment to Wilderness Study Areas has been confined primarily to two areas which have



Castle Peaks Wilderness Study Area is a highly scenic area containing over 200 plant species and providing habitat for many raptors, deer, and bighorn sheep. These exceptional values are protected by the Wilderness Interim Management Policies.



The Kelso Dunes in the East Mojave National Scenic Area are a unique landform with high scenic values. These are important considerations in recommending this area for inclusion in the National Wilderness Preservation System. The Kelso Dunes have been closed to off-road vehicles since 1974.

received high public visibility. These concerns involve the Barstow to Las Vegas motorcycle race which passed through the Soda Mountains, a recommended nonsuitable WSA, and the proposed opening of the Panamint Dunes, a recommended suitable WSA, to limited off-road vehicle use.

Recommendations - Aerial reconnaissance flights should be continued to the extent funding permits; priority should be given to suitable WSA's. The public should be encouraged to assist wherever possible in identifying unauthorized activities. It might be possible to enter into volunteer and cooperative management agreements with interested organizations in order to increase the effectiveness of the WSA surveillance program.

Goal 2: Provide a variety of physical settings and challenges which offer opportunities for solitude or primitive and unconfined types of recreation.

Desertwide wilderness opportunities cannot be evaluated until all wilderness Plan Amendments have been acted upon in 1988. Among the desert WSA's, there is a representation of all significant landforms and ecosystems, and a balanced geographic distribution of opportunities.

F. WILD HORSE AND BURRO

Goal 1: Provide for the year-long feed requirements of wild horses and burros by reserving sufficient forage to meet the biological requirements of a specified number of animals.

Monitoring Techniques - Sufficient forage for horse and burro herds comes from maintaining desirable range condition and trend and adjustment of herd sizes. Currently, vegetative condition and trend in Herd Management Areas is determined by ocular estimates. In places where herds share the range with livestock, livestock grazing studies may provide additional data relating to the horse and burro herds. These studies are filed in grazing case files; ocular estimates are not necessarily recorded. As Herd Management Area Plans are written, new condition and trend studies will be selected and established.

The size of the herds is determined through aerial censuses and random observations. Because burros frequent inaccessible country, accurate counts often require aircraft. Funding has restricted aircraft use resulting in population estimates that are not as frequent nor as accurate as needed.

Progress - Since the Desert Plan was completed, three Herd Management Area Plans have been completed; all six plans prescribed by the Desert Plan were originally scheduled to be completed by 1984. A total of 10,588 burros have been removed since 1980. An estimated 4,380 remain; this is 3,138 more than the proposed management level. Burro herd numbers are approaching desired management levels in some areas.

A close, cooperative working relationship has been established with Death Valley National Monument and China Lake Naval Weapons Center. They have contributed funding to the Bureau in bringing about a major reduction in the number of burros in the northern portion of the desert.

Public Input - The public has been nearly unanimous in its support of burro removals. The public has expressed concern for the safety of the animals, but generally wishes to see numbers reduced so that competition with wildlife is eliminated.

Recommendations - The remaining Herd Management Area Plans should be completed as soon as possible, and the implementation of studies called for in the Herd Management Area Plans should be a high priority. Recordation and analysis of monitoring data should occur on a regular basis. Periodic, systematic censusing is also essential. Roundups should proceed at their current rate. Vegetation condition and trend need to be monitored to properly determine the optimum herd sizes.

Goal 2: Provide adequate cover for wild horses and burros by maintaining free access to existing cover.

Monitoring Techniques - Progress toward this goal has been assessed strictly through field observations; no records have been kept.

Progress - Removal of 10,588 burros has reduced the competition for cover and lowered impacts on other sensitive resources. Vegetative cover is improving where burro herds have been reduced. No impediments to access have been reported.

Public Input - Interest in this goal has been minimal. Concern has been expressed that burros have enough cover so that they don't require the use of riparian areas critical to wildlife.

Recommendations - Herd Management Area Plans should be completed and implemented to direct management activities. Horse and burro removals should continue at the present rate. Monitoring of riparian and other key areas should be undertaken to determine if additional steps are needed to protect them.

Goal 3: Provide adequate water to meet the year-long requirements of wild horses and burros by improving existing waters, developing new waters, and developing alternative waters when wild horses and burros must be excluded from an existing water source.

Monitoring Techniques - Records of water improvements are kept in project files in each Resource Area. As Herd Management Area Plans are completed, additional development needs, priorities, and timetables are described.

Progress - Access to water for wild horses and burros has been maintained and improved in spots since the Desert Plan was written. Over 25 primary and 30 secondary water sources are used by horses and burros in the desert. More than 15 of these are improved waters. Where burros have been fenced out of springs, alternative water has been provided. The preparation and implementation of Herd Management Area Plans will assure that progress toward this goal continues.

Public Input - Interest in this goal is high in a few people. Concern is centered around the elimination of conflicts over water between wild horses and burros and wildlife.

Recommendations - Existing and potential water sources should be inventoried and monitored to determine need for improvement and need for separate wildlife watering facilities.

Goal 4: Provide adequate living space for wild horses and burros by designing new structures or modifying existing structures in such a manner as to allow for the normal distribution and movement patterns of these animals.

Monitoring Techniques - Project files document the existence of structures that might influence wild horse and burro movements. The distribution of the herds has been monitored through censuses, ranger patrols, and field observations. Ten animals have been marked so that their movements can be studied; others have been photographed for the same purpose.

Progress - No projects interfering with movements have been built since the Desert Plan was written. Numerous horses and burros outside of the Herd Management Areas have been removed. Where burros have not been thinned, they tend to spread out, repopulating areas from which they have been eliminated.

Public Input - Interest has been low on this goal. No comments have been received that discuss problems with structures. Several comments have been made that herds should be reduced to the point that burros do not spread into new areas.

Recommendations - Summaries of the monitoring efforts should be made annually for each Herd Management Area. Additional monitoring of herd movements is needed desertwide. Future removal efforts should be planned in a manner that reduces the liklihood of burros repopulating new areas.

Goal 5: Protect wild horses and burros on public lands by conducting surveillance to prevent unauthorized removal or undue harassment of the animals.

Monitoring Techniques - Monitoring has taken place exclusively through surveillance and observations made by ranchers, sheriffs, ranger patrols, and other Bureau staff.

Progress - The unauthorized removal or harassment of horses and burros in the California Desert is believed to be virtually nonexistent. Through public contacts and news releases, the public has been made aware that horses and burros are protected by law. Ranger patrols are made through Herd Management Areas on a regular basis.

Public Input - There has been nothing said specifically about this goal. However, the public's concern for these animals was the motivating factor for the creation of the Wild and Free Roaming Horse and Burro Act by Congress.

Recommendations - The present public information program and regular ranger patrols should be continued. Allegations of wild horse or burro harassment should be vigorously investigated.

Bureau wranglers have gathered over 10,000 burros from the northern Mojave Desert portion of the District since 1980. Among these were 5,000 burros captured for the China Lake Naval Weapons Center and 3,000 burros captured for Death Valley National Monument.

G. LIVESTOCK GRAZING

Goal 1: Continue the use of the California Desert for livestock production to satisfy the need for food and fiber from public land.

Monitoring Techniques - The number of livestock grazed and the amount of use is recorded annually in the grazing case file for each livestock allotment. This number is derived from Use Authorizations and Certified Actual Use Reports made by the operator.

Progress - After the Desert Plan was completed, grazing decisions were issued that reduced the authorized number of Animal Unit Months (AUM's) in several allotments. Combined with the impact of a dry year, this resulted in the number of AUM's desertwide falling from 115,000 in 1980 to 85,000 in 1981, a 26 percent decrease in grazing use. However, from 1981 through 1983, the number of AUM's has steadily increased to 101,000 AUM's; this represents a 19 percent increase in grazing use. These figures are total AUM's including ephemeral use.

A trend in the amount of livestock use can be difficult as the amount of use depends largely on the quantity of feed available. Since the amount of feed is closely tied to precipitation, livestock numbers tend to fluctuate with the rainfall.

Utilization of annual forage by steers is dependent upon transportation costs and availability of steers. Other factors, such as beef prices, also cause livestock numbers to vary annually.

Barring unexpected changes in external factors such as precipitation, it is anticipated that livestock use of the California Desert will continue to increase as the range condition improves.

Public Input - A small part of the public is very interested in the level of livestock production. The agricultural community feels that the desert forage is underutilized and that production could be greatly increased without harming the desert. Conversely, others feel that all grazing is detrimental to the desert and that it should be eliminated. Both groups are vocal and actively participate in reviewing grazing management plans.

Recommendations - The current trend in livestock use is upward. After an initial reduction, livestock numbers have increased concurrent with an improvement in range conditions. As Allotment Management Plans (AMP's) are implemented, improvements are built, and vegetation condition improves, livestock grazing levels are expected to increase. Current monitoring of production levels is adequate.

Goal 2: Use livestock grazing as a tool to change or improve vegetation for meeting livestock needs as well as other management objectives set forth in the Desert Plan.

Monitoring Techniques - Numerous methods are used to monitor rangeland vegetation; cover/frequency transects, photo and production plots, and actual use studies are but a few. The procedure used varies according to the plant community and the length of time it has been in place. Allotment Management Plans describe the monitoring needs and efforts in individual allotments. Monitoring typically occurs annually in priority areas.

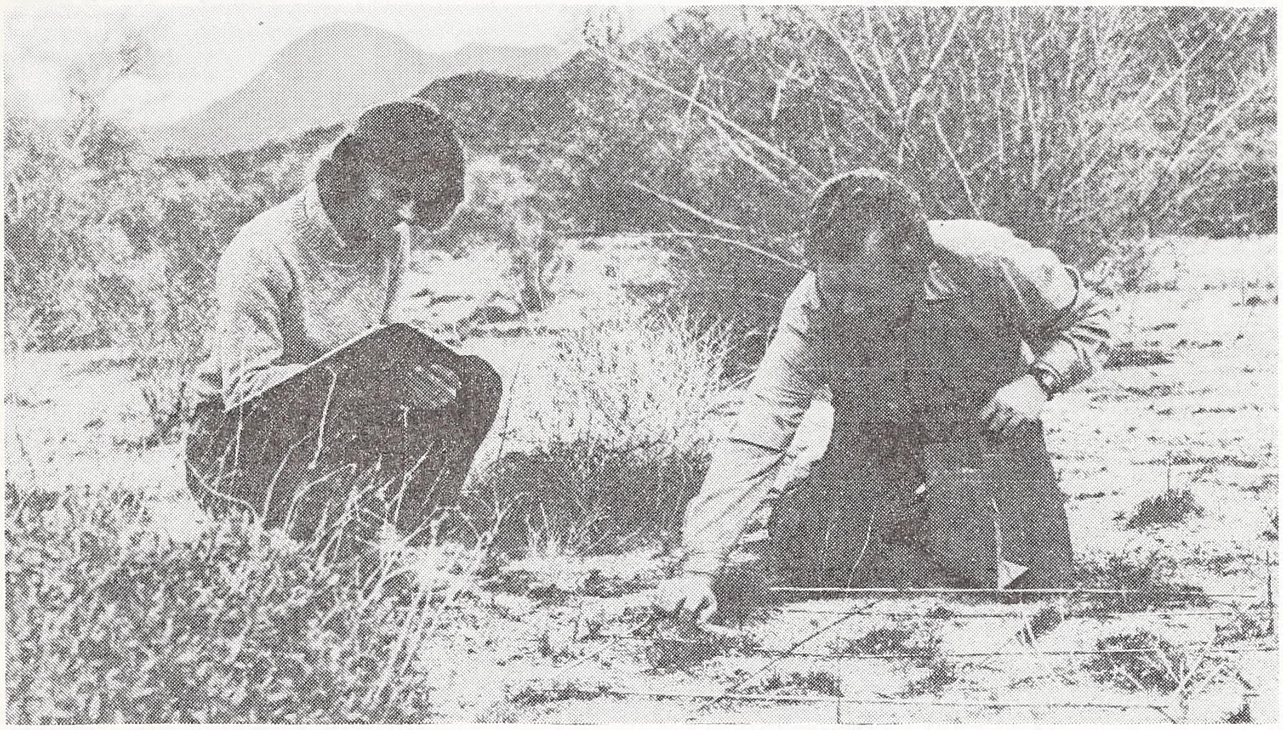
Progress - The health of a vegetative community is quantified by describing it in terms of four range condition classes - Excellent, Good, Fair, and Poor. Because vegetation usually changes slowly, it often takes years for a community to change condition classes.

In light of this, the desert has responded very favorably to the proper grazing use of livestock and above average rainfall. In 1980, 50 percent of the allotments were in Good condition, 39 percent in Fair, and 11 percent in Poor. By 1983, this had improved to 58 percent in Good and Excellent condition, 41 percent in Fair, and 1 percent in Poor. Moreover, the condition is still improving in 39 percent of the allotments.

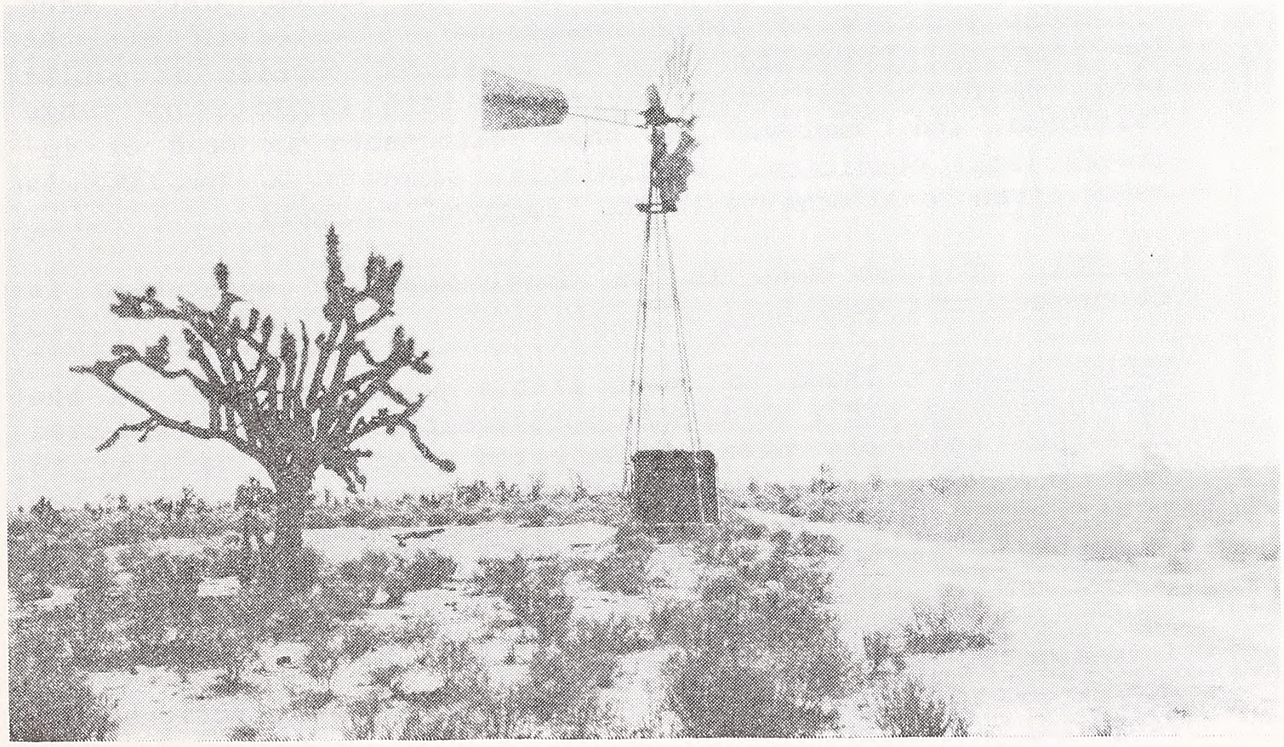
Public Input - A number of people are very concerned about how livestock use affects the desert vegetation. Ranchers are always interested in improving forage; others are concerned about native vegetation. Some comments received have expressed concern over riparian areas, and some have questioned whether or not enough monitoring is taking place.

Recommendations - To ensure that current management efforts are successful, monitoring should remain a high priority. Monitoring plans should be completed for each Resource Area. These plans would designate priority monitoring needs and improve efficiency. Additional time should be made available to evaluate the results from an ever increasing number of studies.

Goal 3: Maintain lands that are in good to excellent condition at these production levels. Those lands in poor to fair condition will be improved by the application of appropriate management prescriptions



Range studies have become a significant portion of the rangeland monitoring program. This field crew is clipping the annual growth within the plot to determine stocking levels for ephemeral rangeland.



Range improvements such as this windmill provide new sources of water which increase distribution of livestock and other animals in the desert. Many water developments serve not only livestock, but also wildlife, wild horses, and burros.

to regulate livestock grazing within the framework of multiple-use and sustained yield.

Discussed under Goal 2.

Goal 4: Improve vegetation use by improving distribution of livestock through the use of range improvements and specific management prescriptions which will be fully developed and implemented with Allotment Management Plans (AMP's).

Monitoring Techniques - The installation of range improvements is recorded in project folders and grazing case files. AMP's are also filed in the case files. The monitoring of vegetation is discussed under Goal 2.

Progress - A total of 29 of the 71 allotments in the CDCA have AMP's. Of these, the average AMP is only 20 percent implemented. Although the number of AMP's written represents good progress, it is slightly behind the scheduled number. The low level of implementation is due to the lack of money available for range improvements.

Since adoption of the Desert Plan, a Bureauwide range classification system has been established for the purpose of setting priorities for range improvements. The system places each allotment into one of three categories - "Custodial" for the low priority allotments often on scattered parcels of public land, "Maintain" for those allotments with satisfactory range condition, and "Improve" for those allotments in need of improved range condition. Accordingly, priority in the CDCA is being given to allotments in the "Improve" category.

Specific progress made in the improvement of vegetation is discussed under Goal 2.

Public Input - There has been little public interest in the development of AMP's or range improvements. Only the affected livestock operators have participated readily in helping to prepare AMP's and installing improvements.

Recommendations - Each Resource Area should prepare an annual report summarizing how far AMP implementation has progressed the preceding year. Use of temporary employees should be increased to give the range staff more time to write AMP's. Every effort should be made to encourage contributions for range improvements.

Goal 5: Conduct specific procedures for monitoring condition and trend to determine the grazing adjustments necessary to meet management goals.

Discussed under Goal 2.

H. RECREATION

Goal 1: Provide opportunity for recreational activities, such as motorized-vehicle free-play, competitive events, nature study, rock collecting, land sailing, and hunting.

Monitoring Techniques - Since approval of the Desert Plan in 1980, most monitoring has consisted of observations and surveillance by rangers with support from specialists. Some photo plots and ground surveys have been conducted as well as intensive monitoring associated with some special events such as off-road vehicle races.

Progress - Following is a discussion of the changes which have been observed in the opportunities to participate in the various recreational activities occurring on the public lands in the California Desert.

Motorized-vehicle free-play - Since implementation of the Desert Plan, off-road vehicle use throughout the CDCA has undergone only moderate change. Based on vehicle registrations and field observations, the number of users appears to have increased slightly with use still concentrated in specific use areas on weekends and holidays.

The demand for motorized-vehicle free-play is still high and has shifted based on new technological advances associated with the introduction of all-terrain vehicles (ATV's). The terrain requirements of ATV's is somewhat different than that of dunebuggies or motorcycles, creating free-play demands in areas not previously used by off-road vehicles.

Presently, opportunities for free-play, trail riding, etc. appear static desertwide. However, there have been decreases in some areas and increases in others. It is projected that overall opportunities will remain stable, use patterns will change in some areas due to ATV use, and visitor numbers will gradually increase.

Some changes since Desert Plan implementation include the expansion of the Rasor open area, adjustment of the Upper Johnson Valley Open Area boundary, and change of the central portion of Imperial Dunes to Class L and Gordon's Well to Class I.

The emergence of all-terrain vehicles in great numbers has placed new demands on public lands, especially in areas of low sand dunes such as Windy Point near Palm

Springs, Cadiz Dunes, and badlands in the Yuha Desert and Painted Gorge.

The State of California Off-highway Vehicle Grant Program is providing funding for several projects. This is helping to provide additional free-play opportunities in many areas.

Competitive events - The number of competitive events has increased since 1980 as has the number of users. Although there has been a decrease in 4-wheel drive events and an increase in motorcycle events, the pattern of use has generally remained stable (competitive use occurring on weekends, only). This trend is expected to continue. There appears to be a trend toward more trailriding events such as poker runs, enduros, and family tours. This could have an effect on the number of competitive events organized clubs may wish to sponsor in the future.

Several actions currently underway should provide better competitive event opportunities in the desert. Among these are potential land exchanges in open areas with Southern Pacific Land Company, additional State of California off-road vehicle grants, and a closer working relationship with off-road vehicle user groups,.

Nature study - While opportunities for nature study have remained stable, the number of users has increased. The designation of numerous special management areas (Research Natural Areas, Outstanding Natural Areas, and Areas of Critical Environmental Concern) assures users that areas suitable for nature studies will continue to be available.

Rockhounding - The trend for this activity is not evident based on the observations since 1980. We do know that the use is dispersed throughout the CDCA. Closure of some access routes resulting from implementation of ACEC plans and vehicle route designation decisions, the perception that vast mining claims are excluding them from rockhounding areas, and the perception that the best areas have been picked over may be having an adverse effect on rockhounding activities in the desert.

Land Sailing - Due to the specific topographic requirements of this activity, opportunities are extremely limited. Ivanpah Lake, Harper Dry Lake, and Superior Dry Lake are a few of the areas where land sailing occurs. Based on field observations, it is believed that the number of users has remained fairly stable since institution of the Desert Plan. Indications suggest that this trend will continue. Increased motorized-vehicle use of dry lakes, especially during wet periods, may be having an adverse effect in some areas on land sailing opportunities.

Hunting - Habitat enhancement techniques such as water guzzlers and windmill water sources have helped to compensate for the detrimental effects of recreation activities on wildlife. The demand for hunting and the available hunting opportunities do not appear to have changed much since 1980.

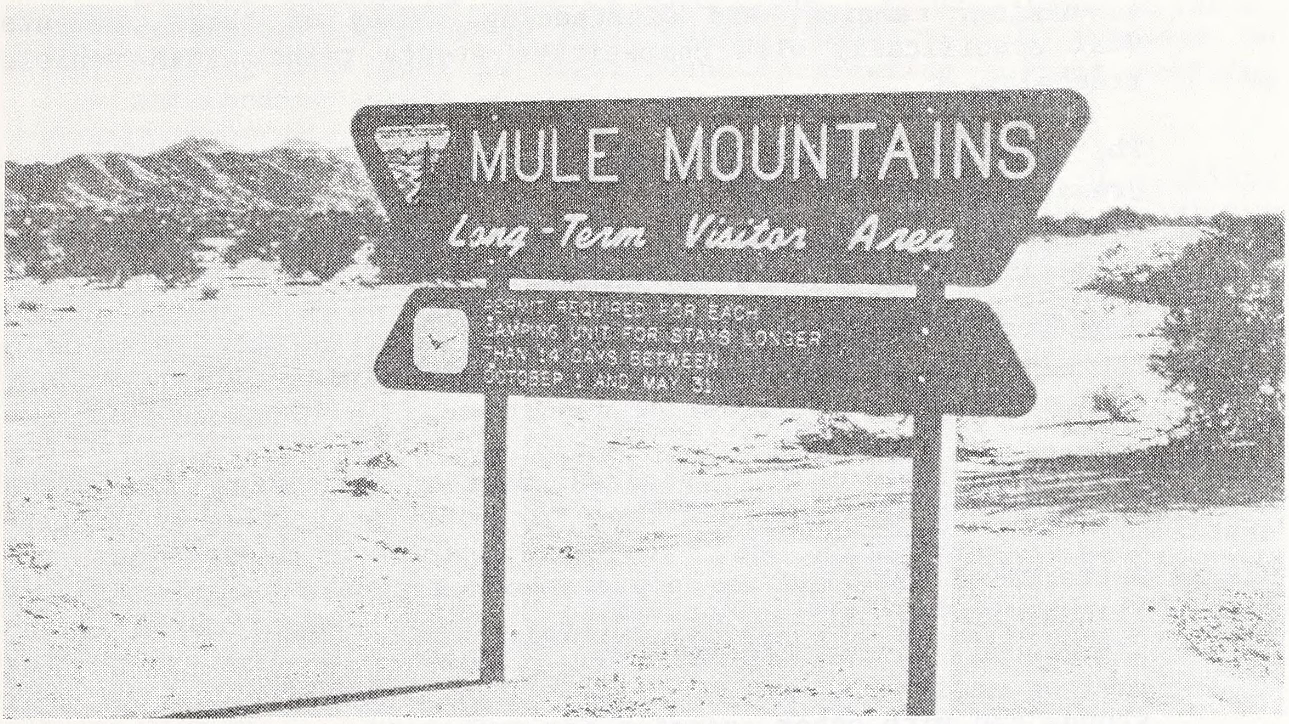
Sightseeing - The number of sightseers has grown slightly since 1980 as more and more people have become aware of the sightseeing opportunities in the desert. The opportunities for this activity have remained stable. A wider variety of maps and brochures has increased available information to sightseers and perhaps provided a higher quality experience.

Camping - Developed camping opportunities have been affected very little with implementation of the Desert Plan. Continued improvement and maintenance of developed sites have assured a high quality camping experience. Distribution of maps and brochures has made dispersed camping opportunities more available to people. Camping use trends may increase in the future as overall desert visitor use increases.

Long-term Visitor Program - Specially designated areas for long-term camping use have been provided to accommodate the increasing number of "snowbirds" who migrate to the southern California Desert during the winter months. It is expected that long-term use will continue to increase on a yearly basis.

Hiking - The Pacific Crest National Scenic Trail and numerous other trails throughout the CDCA have accommodated an increasing number of hikers and backpackers each year. Trail development has increased, providing greater opportunities for this activity. Volunteer efforts and cooperative management agreements will continue to be pursued to help increase both the quality and quantity of hiking opportunities.

Public Input - Because problems or conflict situations generate greater public response than do positive programs or support, the majority of public comment received regarding recreation is negative. Most of these comments arise from conflicts between


MULE MOUNTAINS
Long-Term Visitor Area
PERMIT REQUIRED FOR EACH
CAMPING UNIT FOR STAYS LONGER
THAN 14 DAYS BETWEEN
OCTOBER 1 AND MAY 31

Since September 1983, eight long-term visitor areas have been designated to accomodate winter visitors. The Mule Mountains LTVA located in eastern Riverside County is the largest in the CDCA.

The Pacific Crest National Scenic Trail is being constructed to provide hiking and backpacking recreation. Sections of the Scenic Trail passing through the CDCA have been completed with assistance of the California Conservation Corps.

off-road vehicle activity and other recreation activities such as hiking, camping, and sightseeing. Many of these comments deal specifically with competitive events rather than vehicle free-play.

The Long-term Visitor Program is another area frequently addressed in public comments. These comments are generally in support of the program, with some negative comments addressing possible conflicts with private camping businesses.

Requests for information are a third major category of public contact. These requests provide insight into visitor preference and areas of interest or concern.

Recommendations - An organized monitoring system should be developed to determine the need for additional areas or facilities for recreation use. The determination of visitor numbers, patterns of use, and use preference data would be best accomplished through aerial monitoring, traffic counters, and on-the-ground visitor use surveys. Other methods for monitoring visitor activities should include increased contacts with user groups and with other agencies for information exchange.

The use of volunteers is also an excellent way of increasing the Bureau's management capabilities. There appears to be good interest in volunteer efforts of all types. Cooperative management is another excellent source of help in increasing the Bureau's presence and improving overall recreational opportunities.

Goal 2: Provide recreation management and facilities with emphasis on protecting desert resources with special scenic, historic, scientific, or recreational values.

Monitoring Techniques - Recreation monitoring has focused on compliance with regulations such as closures, use restrictions and permit stipulations. Most of this monitoring effort has centered around incident reports, observations, and surveillance by rangers with support from specialists.

Progress - Progress toward this objective has been limited by both funding and manpower. The existing conditions of scenic, historical, and scientific resources in the desert appear to reflect stable to declining conditions especially in areas where both recreation use and resource sensitivity is high. This is not a new trend; it has been going on for many years. Our ability to correct this situation will require a much higher level of management than is currently available. Accomplishments since 1980 have helped to reduce the severity of this gradual decline in resource conditions. Without these efforts, resources would be in much worse condition. Our success in meeting this goal is significant considering current staffing and funding levels.

Public Input - In general, comments pertain to lack of facility maintenance and trash collection. Occasionally, positive comments are made concerning the more developed facilities such as the Barstow Way Station and the Desert Tortoise Natural Area. Comments addressing resource protection emphasize the need for a higher level of protection.

Recommendation - Comprehensive ranger patrols of sensitive areas should be increased. Also, there is a need for an increased ability to track approved actions as well as plan implementation. Affected resource programs need to assure monitoring of high-use areas to determine trends accurately. Additional funding is needed to provide a higher level of maintenance of recreation facilities.

Goal 3: Protect desert users and minimize conflicts among recreationists and between recreationists and users of other desert resources.

Monitoring Techniques - Monitoring in this area has consisted of incident reports, observations, and surveillance by rangers with support from specialists.

Progress - Overall, the number of recreationists is increasing, and, consequently, so are the number of user conflict incidents. Trends indicate a greater number in the future. The conflicts both between recreationists and between recreationists and other users center around irresponsible behavior in the operation of motorized-vehicles and in the use of firearms.

Increased enforcement capabilities by the rangers has been an important factor in resolving these confrontations. Signing of areas and routes has helped to reduce problems stemming from inadvertent trespass and impacts to areas. Increased user awareness and information available through brochures and maps have also helped reduce conflicts. Under a multiple-use management mandate, it is virtually impossible to maximize every user need. Therefore, some conflicts will always exist.

Public Input - Public perception of this issue is that the Bureau is lacking the necessary enforcement capabilities and the management support to fully resolve user conflicts. This topic is also addressed under "Public Input" for Goal 1.

Recommendation - Aerial reconnaissance flights, on-the-ground contacts, and traffic counters should be used to supplement ranger patrols. Greater public awareness and education should be continued to reduce user conflicts. Us of volunteers should be encouraged to provide a greater on-the-ground presence.

Goal 4: Increase public awareness and enjoyment of the desert through education.

Monitoring Techniques - Public awareness has been measured through user compliance. Ranger incident reports, observations, and surveillance are also important methods of monitoring this goal.

Progress - Through increased production of brochures and maps and a greater effort in establishing opportunities for personal contact, awareness of desert users has increased. Demand for these published materials is very high and supplies are quickly exhausted. However, the general public's awareness has remained unchanged overall because these people are difficult to contact if they are not regular desert users. This trend seems likely to continue. The attitudes of the regular desert users appear to be more positive, and new projects generally enjoy a more favorable reception. In response to public demand, a new map series is being developed to replace the outdated Interim Access Guide maps. Attendance at several shows such as the S.C.O.R.E. Off-road Show and the San Diego Rock and Gem Show has resulted in many positive reponses. Thousands of maps and brochures have been distributed in this manner.

Public Input - The public has responded positively to several new brochures and the Resource Area Guides. Bureau attendance at several trade shows was received favorably. We receive numerous requests for brochures, maps, and other information.

Recommendations - The Bureau should attempt to determine the types of information in which the public is most interested. Printing and distributing of new as well as existing materials should continue with an emphasis on quality as well as quantity. Establishment of Desert Information Outposts should be completed to help distribute desert information.

Goal 5: Monitor and evaluate visitor use and preference and adjust Bureau programs to meet changing needs.

Monitoring Techniques - Ranger observation and surveillance assist in evaluating visitor use and preference. No organized or systematic method for the collection of visitor use and preference data currently exists.

Progress - Because no program to obtain visitor use or preference data currently exists, it is not possible to accurately predict how well we have achieved this goal. The Desert Plan amendment process has resulted in several Plan Amendments for recreation and does represent a willingness to respond to changing public attitudes and demands. Perceptions and concerns of the public are also represented through responses to individual planning efforts. Ranger contacts, visitor monitoring, and other opportunities for information collection have been limited due to low funding levels.

Public Input - Comment on this subject deals almost exclusively with the need to increase ranger patrols and number of rangers.

Recommendations - Greater presence at recreation group conventions and regional meetings and more contact with professional recreation management groups would provide better insight into public perceptions. Aerial resource monitoring is needed to better evaluate visitor use patterns. Finally, more comprehensive analysis of existing data is needed to prepare better management decisions.

Goal 6: Provide for off-road recreation where appropriate.

Monitoring Techniques - User compliance, user group involvement and input, and ranger observations and surveillance are used to determine the level of achievement of this goal.

Progress - Opportunities for off-road recreation throughout the CDCA have remained fairly stable since approval of the Desert Plan. However, use and demand for off-road vehicle opportunities has steadily increased. This is due partially to new technology (e.g., introduction of all-terrain vehicles) and partially to the increased number of overall recreation users, most of whom rely on the motorized-vehicle to gain access to the desert.

The route designation process has been completed in most areas with the result that most existing routes have been left open for motorized use. As a result of cooperative agreements with the State of California, additional funds have been made available to upgrade off-road vehicle facilities, acquire vehicle rights-of-way, and purchase private lands for off-road vehicle use. The overall trend appears to be upward with opportunities increasing in the future. Changes in types of use, such as increases in the use of all-terrain vehicles, is also expected. We are currently analyzing existing off-road vehicle open areas and other off-road vehicle use areas to determine if use is still appropriate or if changes need to be made to protect resources or accommodate new off-road vehicle demands.

Public Input - See the discussion of public input for Goal 1.

Recommendations - More rangers are needed to reduce resource degradation and provide, through surveillance, a more accurate method of determining use levels. Aerial reconnaissance flights would also be valuable to monitor use levels and monitor trends. Coordination with off-road vehicle organizations and more field contacts could help determine changes in user perceptions and identify the need for changes in the Desert Plan.

OCTOBER 1982
3Wheeling
THE ALL ... VEHICLE MAGAZINE
DO-IT-YOURSELF: INSTALLING A CHAIN TENSIONER
RED & WHITE HOT HONDA'S ATC 200X
4-STROKE POWER/ FULL SUSPENSION
CHOOSING THE RIG... FOR YOUR 3-WHEE...
RIDE SPOT: WINDY POINT
STOP BY ON YOUR NEXT TRIP TO PALM SPRINGS

Media publicity has attracted all-terrain vehicle users to many areas in the desert, such as Windy Point near Palm Springs.

I. MOTORIZED-VEHICLE ACCESS

Goal 1: Avoid or minimize damage to or degradation of natural, cultural, and aesthetic values.

Monitoring Techniques - Recreation monitoring has focused primarily on compliance with regulations such as closures, use restrictions, and permit stipulations. Most of this monitoring effort has centered around observations and surveillance by rangers with support from other resource specialists.

Progress - As vehicle use in the desert is one of the primary impacts on desert resources, insight into progress towards this goal is reflected in the progress toward the goals of other resource programs, especially soils, cultural resources, wilderness, and wildlife. Refer to the discussions of these resources for a description of condition and trend.

Public Input - In general, comments demonstrate a negative public attitude about progress towards this goal. The public's general perception is that damage to all resources by off-road vehicles is excessive.

Recommendations - Refer to other resource narratives for these recommendations. Also, see the recommendation for Goal 2.

Goal 2: Provide a reasonable network of access to meet needs of desert users through the route designation process.

Monitoring Techniques - User compliance and public contacts by rangers provide insight into achievement of this goal.

Progress - The route designation process is in progress throughout the CDCA. After initial inventories of most areas, it appears that a small percentage of routes will be recommended for limitation or closure, thus leaving a large network of open access routes.

With an increase in desert use, a greater demand for access will become apparent. However, with the present network of routes, few if any will have to be added.

A new desert access guide map series is being developed to provide accurate, on-the-ground information. Signing of routes will also provide on-the-ground clarification.

Public Input - Public comment on the route designation process indicated that additional existing ways and trails need to be identified and mapped. Also, some commentors have indicated that increased monitoring to inhibit proliferation of new trails through "pristine" areas was needed. Signing of routes has also been identified by some members of the public as a priority.

Recommendations - Several monitoring methods could be implemented. These include traffic counters, low-level photo reconnaissance flights, and continuous inventory and evaluations of routes. Route designations should be amended as necessary.

Goal 3: Reduce conflicts among desert users.

See Goal 3 for Recreation.

Goal 4: Provide management that is understandable, easy to follow, acceptable, and supported and encouraged by most desert users.

Monitoring Techniques - User compliance and public contacts by rangers are methods used in monitoring this goal.

Progress - Public awareness and support have increased though confusion still exists in some programs (e.g., route designations, Long-term Visitor Areas) because of their somewhat complicated nature. Inaccuracies in published materials such as maps and brochures have created some confusion and misunderstanding of certain Bureau programs.

Field contacts by rangers and other field personnel have improved understanding of and compliance with regulations.

Public Input - Comments indicate that confusion exists in understanding regulations and ability to accurately determine the status of routes on the ground.

Recommendations - Personal contact with users should be maximized in order to determine areas of confusion. Published materials should be reviewed and redrafted to remove inaccuracies and inconsistencies. The Bureau should involve users when producing educational or informational materials.

Goal 5: Implement and manage programs efficiently, economically and cooperatively.

Progress - Several actions have enhanced program management and implementation. First, funding from the State of California Off-highway Vehicle Grant Program has been received or requested for 18 projects. Secondly, Cooperative Management Agreements or similar arrangements have been implemented in 13 project areas throughout the CDCA. Lastly, volunteerism is used increasingly to help offset problems caused by personnel cuts, thus providing manpower for projects and increased management capabilities.

Public Input - Positive public comments have been received concerning Cooperative Management Agreements and the increased use of volunteers.

Recommendations - There is a continuing need to monitor existing management programs. More personnel are needed to thoroughly implement all programs. Cooperative management and volunteer efforts should be continued to help increase the efficiency of various programs. Utilization of alternative funding sources such as the State Off-highway Vehicle Grant Program and the Bureau's Gift Catalog Program should be continued.

Since approval of the Desert Plan in 1980, the use of all-terrain vehicles has increased dramatically. Bureau rangers regularly make contact with cyclists to promote safety and compliance with off-road vehicle regulations.

J. GEOLOGY, ENERGY, AND MINERAL RESOURCES

Goal 1: Maximize the area available for exploration and development of critical mineral resources.

Monitoring Techniques - Data for assessing the effectiveness in meeting this goal were obtained from Bureau mining claim records and acreage statistics from withdrawal review case files.

Progress - The total number of mining claims in Wilderness Study Areas increased 57 percent from 12,931 in 1980 to 20,364 in 1983. Furthermore, the amount of public land available for mineral exploration and development will increase by a total of 248,000 acres as a result of a number of mineral withdrawals which are recommended for revocation.

Because of the proprietary nature of mineral production figures, it was not possible to compare actual production output.

Public Input - The public remains divided on mineral exploration and development in the desert. Environmentalists have favored more restrictive control over activities, while mining interests have shown concern about limitations on exploration and development.

Recommendations - The Bureau should continue to track progress toward providing access to make promising areas open for critical mineral resource exploration and development consistent with Federal surface mining regulations and other resource goals.

Goal 2: Maximize potential for exploration and development of leasable minerals.

Monitoring Techniques - The number of acres leased for oil and gas, geothermal steam, and solid leasable minerals; the number of applications to drill; and production figures were analyzed to assess progress toward achieving this goal.

Progress - The amount of land under lease has increased for all leasable minerals.

Oil and Gas - There is a total of 2.4 million acres of public land in the CDCA under oil and gas lease. This is a four-fold increase in acreage leased over 1980. This can be attributed primarily to the substantial effort given to clearing the backlog of leases which were pending in 1980. However, there are at present no producing oil or gas wells on public lands in the desert.

Geothermal Steam - Leases covering 140,800 acres of public land in the CDCA have been issued. This is a two-fold increase in acreage over 1980. There is currently one field in production generating about 10 megawatts of power.

Solid Leasable Minerals - Solid leasables include saline materials found in desert dry lakes. Currently, about 30,000 acres are under lease, producing 1.1 million tons of material annually. This is about a 20 percent decrease from that produced in 1980.

Public Input - The public division of opinion on mineral exploration and development is most apparent on oil and gas leasing and exploration and geothermal development near the Salton Sea.

Recommendations - The Bureau should continue to track progress toward maximizing the area available for exploration and development of leasable minerals.

Goal 3: Meet demand for sand and gravel and other salable minerals.

Monitoring Techniques - The number of tons of sand and gravel and other minerals sold was analyzed to evaluate progress toward this goal.

Progress - The sale of sand and gravel from public land within the CDCA has increased by over 50 percent since 1980, from a total of 406,000 tons to 645,000 tons. It seems that the Desert Plan has not reduced production or caused major problems for sand and gravel users.

Other saleable minerals include clay, zeolites, roofing gravel, dimension stone, rip rap, and decorative rock. No clear trend has been established in the sale of these materials since 1980.

Public Input - Public comment on material sales has come primarily from the users, including local government agencies. They have been concerned that the Desert Plan would restrict use of the more accessible supplies of sand and gravel. Imperial County is particularly dependent on public land for meeting local agricultural and road maintenance needs. Caltrans has indicated that the best sources for material to maintain Interstates 15 and 40 are within WSA's.

Recommendations - The Bureau should continue to work closely with industry in the identification of saleable material areas and assure protection of sensitive resources through mining plans of operation. The Bureau should also increase efforts to resolve trespass cases.

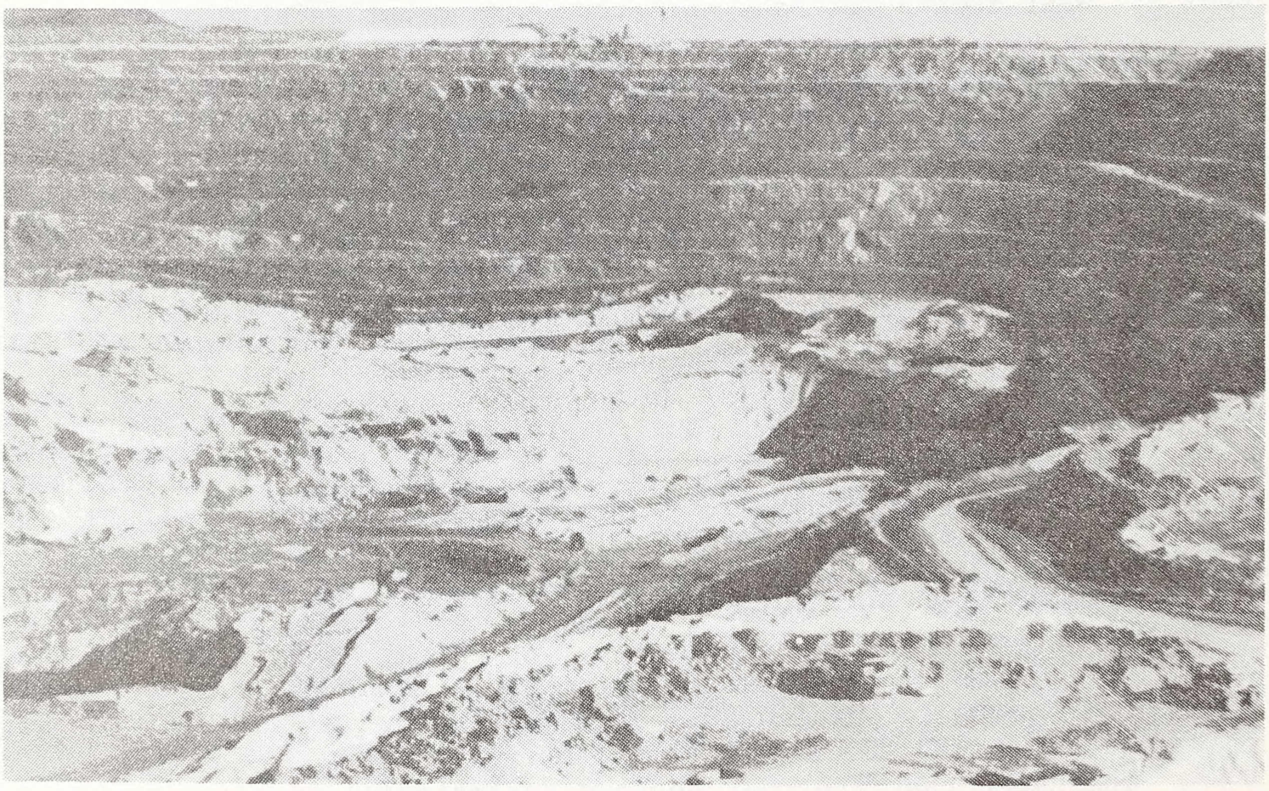
Goal 4: Assure availability of access for mineral exploration and development.

Monitoring Techniques - Miles of routes of travel closed, production of non-critical locatable minerals, and general perceptions of staff specialists were analyzed to assess progress.

Progress - Through the route designation process, approximately 300 miles of roads and trails have been closed to motorized-vehicle access. In addition, restrictions on vehicle use in Wilderness Study Areas have further reduced motorized-vehicle access for mineral exploration and development.

Public Input - See Goal 1.

Recommendations - See recommendations for Goal 1.



The U. S. Borax pit near Boron in San Bernardino County is over one mile across and more than 600 feet deep. More than half of the world's borate production has come from this pit.

K. ENERGY PRODUCTION AND UTILITY CORRIDORS

Goal 1: Establish a network of joint-use planning corridors capable of meeting projected utility service needs to the year 2000.

Monitoring Techniques - The 16 corridors approved in the Desert Plan were examined to see how many projects had been applied for by 1984, how many had been rejected, and how many are still to be finalized. The number of contingent corridors needed to be activated through the amendment process was examined also.

Progress - During the period 1976-1984, while the Desert Plan was being produced and used, there were about 19 major right-of-way proposals for pipelines and transmission lines. Of these, eight proposals were approved, seven were cancelled by the proponents for other than Bureau disapproval, and four are still pending. Although some were considered as alternate routes, none of the nine contingent corridors have been activated. If a contingent corridor is proposed for use, approval must include a Desert Plan amendment. If approved, the corridor would become a permanent corridor. It appears that the corridor concept is working, and there is ample room in the identified corridors to handle the demand for major pipelines, transmission lines, etc. through the year 2000.

Public Input - Utility company representatives have indicated that the corridor system is working. They prefer having identified corridors which provide guidance in the planning stages.

Recommendations - Current monitoring and progress is adequate.

Goal 2: Identify and establish future communication site locations and establish powerplant sites.

Monitoring Techniques - The number of existing communication sites is periodically examined, and the unfulfilled demand for new sites is evaluated.

The Desert Plan identified only two sites for powerplants, and neither has been activated.

Progress - The majority of communication sites include secondary users, who rent space at an existing site from the primary right-of-way grantee. With modification, a large number of radios can be accommodated at each site without major conflicts. During the last two years, the CDCA has granted over 22 communication site rights-of-way; virtually all are secondary user sites or new sites identified in the Desert Plan.

Due to the recent breakup of the Bell Telephone conglomerate, the CDCA is getting numerous requests for new communication sites. Some microwave communication facilities need line-of-sight receivers or relay stations, but only a limited number of transmitters of these types of transmitters can use one site without interfering with each other. Usable sites are very limited because many mountain peaks in the CDCA are not available as they are within Wilderness Study Areas.

Several new powerplant sites have been considered, but none has been approved. Probably only a few additional major powerplant sites will be considered in the California Desert between now and 2000. The trend appears to be toward smaller plants, such as geothermal plants, solar plants, wind energy machines, and biomass conversions.

Public Input - Although there has been little input from companies regarding communication sites, some radio-telephone communication companies have complained that the Wilderness Study Areas (WSA's) have prevented use of many mountaintops across the desert pending a final decision on the WSA's.

We have received no comments on the establishment of power plants on Bureau lands in the desert.

Recommendations - There is a need to meet the increasing demand for microwave stations across the desert and the continuing demand for other types of communication sites within the CDCA. A task force is being formed to study and recommend a planning solution to this problem. The task force will include communication companies, local governments, the military, and members of the public.

Current monitoring and progress on powerplant siting appears to be adequate.

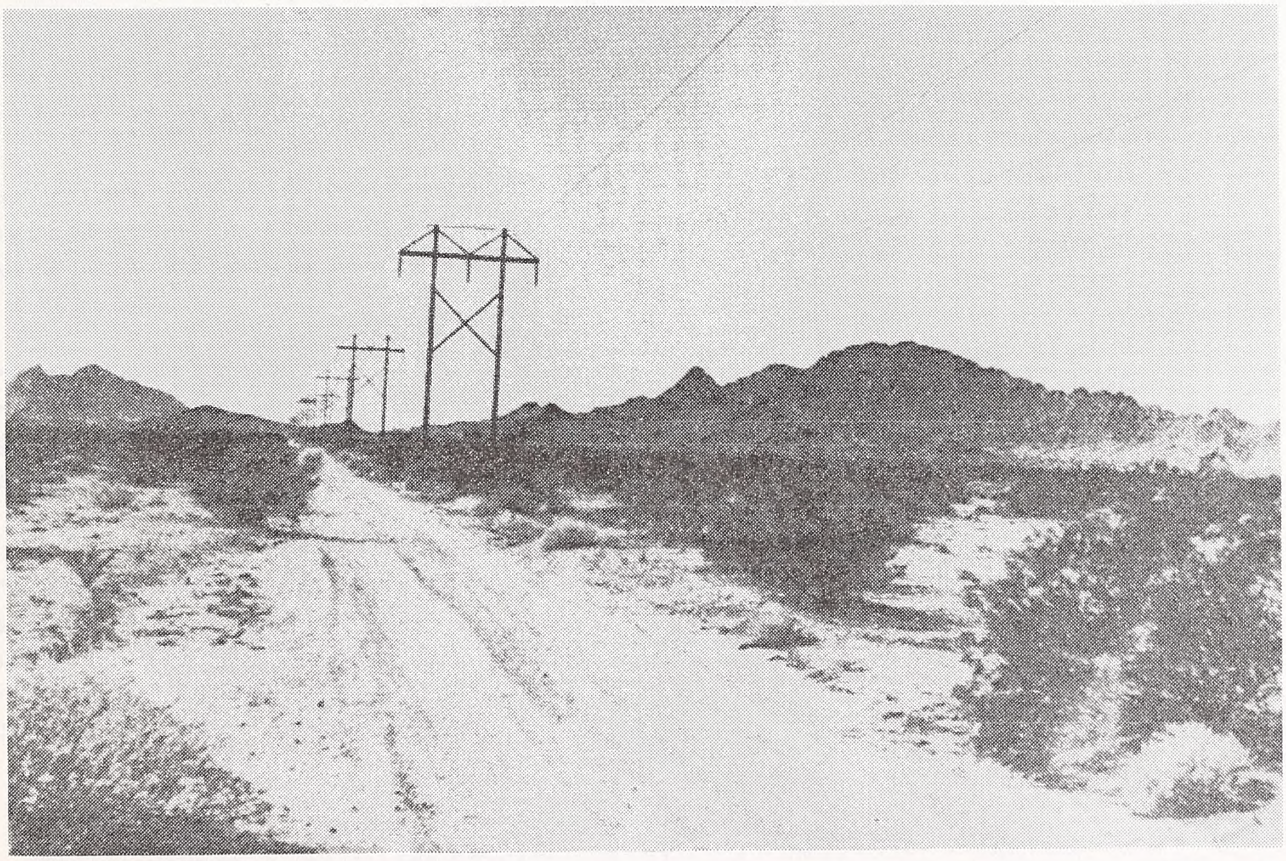
Goal 3: Identify and establish potential geothermal and wind energy development regions.

Monitoring Techniques - Formal monitoring is associated with all geothermal exploration and development. See the Geology, Energy, Mineral Resources (Section J) discussion for further detail. Monitoring of the wind machine program is performed by an assigned compliance officer.

Progress - In general, most of the potential geothermal resource areas in the CDCA have been identified through geologic studies. Most of the wind energy areas were established by governmental studies (primarily by the California Energy Commission) and by studies by companies or individual "wind prospectors." These geothermal and wind energy studies have resulted in applications for lease of Bureau lands. Experimental power plants are being tested, and commercial development is beginning. Solar Energy experiments are also being conducted in the desert.

Public Input - There has been little public input except for concern expressed by some that geothermal plants and wind energy machines are harmful to wildlife and disrupt scenic quality.

Recommendations - The Bureau should continue to cooperate with companies attempting to develop these new power sources wherever it can be done without undue damage to the environment.



Planning corridors designated in the Desert Plan limit the area of scenic disturbance resulting from transmission lines, such as this line across Rice Valley in eastern Riverside County.

L. LAND TENURE ADJUSTMENT

Goal 1: Establish land tenure program that complements the objectives of the Desert Plan Resource Elements.

Monitoring Techniques - The amount of land acquired or released is recorded in case files.

Progress - Significant strides have been made in land adjustment through exchanges. These exchanges have consolidated land ownership within critical management areas, including Wilderness Study Areas, Areas of Critical Environmental Concern, and popular areas open to off-road vehicle free-play. The following exchanges have been completed or are in progress:

Mecca Hills Recreation Area - 640 acres acquired
Fringe-toed Lizard Preserve - 8,000 acre acquired
Whitewater Canyon area - 960 acres acquired
Southern Pacific lands in Stoddard/Johnson Valleys and Afton Canyon - 40,000 acres acquired
Saline Valley exchange with State of California - 53,000 acres acquired
Haiwee/Franklin Reservoirs - 30 acres acquired

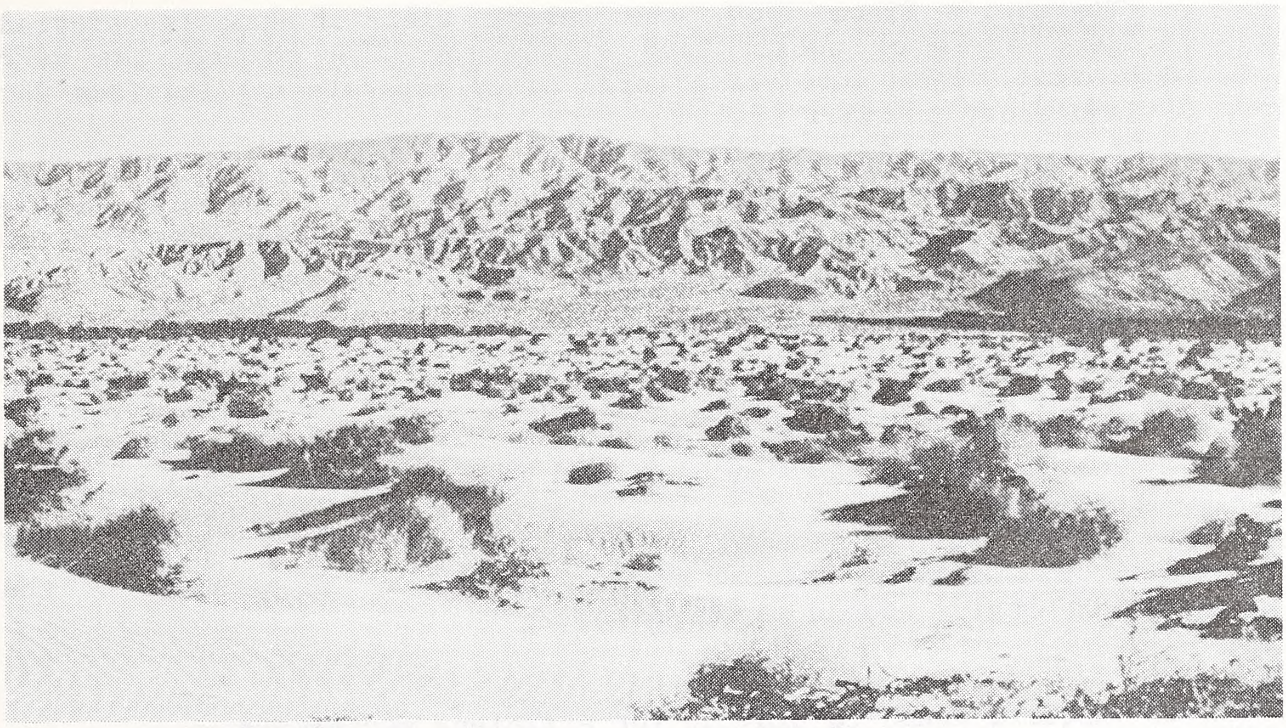
In addition to exchanges, the District has offered scattered parcels for sale to the public through a process of competitive bidding. A total of 1,430 acres have been sold in the CDCA since 1980.

Public Input - The public has been most receptive to the establishment of an active exchange program to accomplish the objectives of the Desert Plan. Concern has been expressed by some about the sale of marketable parcels which would be valuable as a land base for future exchanges.

Recommendations - The Bureau should continue to establish priorities for land exchange proposals in consultation with the California Desert District Advisory Council using the criteria developed by the Council. Future land sales should be carefully scrutinized to be certain that potential land base for future exchanges will not be lost.

Goal 2: Further programs of local governments and organizations through implementation of the Recreation and Public Purposes (R&PP) Act.

Monitoring Techniques - The amount of land transferred to local governments and organizations through the R&PP process is available in case files.



With the aid of land exchanges by the Bureau, the Coachella Valley Preserve is being established to preserve a portion of a valuable dune ecosystem. These exchanges are designed to improve management capabilities and promote specific objectives for resource conservation.

The Coachella Valley Preserve is a major element in a program to preserve the Coachella Valley fringe-toed lizard, which is threatened with extinction.

Progress - Since 1980, the Desert District has transferred 5,607 acres of public land within the CDCA through the R&PP process. This involves a total of 19 separate applications for land under the R&PP act.

Six additional R&PP applications are presently awaiting Bureau action. If granted, these would result in the transfer of an additional 1,226 acres of public lands.

Public Input - The public has been extremely supportive of the R&PP Act and the policy to transfer lands to local governments. In the past twenty years, 151 applications have been received involving over 73,000 acres of land. We anticipate that public interest in the R&PP process will remain rather constant in the future.

Recommendations - Annual status reports on the progress of the R&PP program should be prepared.

Goal 3: Acquire lands to provide for efficient management.

Monitoring Techniques - The amount of land acquired to improve management is available in case files.

Progress - No direct land acquisition has occurred since 1980. However, the District has made significant strides in the acquisition of land through land exchanges during the last two years. (See Land Tenure Adjustment Goal 1.)

Public Input - See Goal 1.

Recommendations - A legislative change is needed to allow the monies received from our lands sale program to be utilized to acquire lands deemed important for other vital objectives.

Goal 4: Cooperate with other agencies in management of adjacent and interspersed public and private lands and assure that land adjustment plans are consistent with locally adopted land-use plans.

Progress - The District has regular interagency cooperative meetings with the State Department of Fish and Game, U. S. Forest Service, and the military and a general meeting annually with all agencies and local governments to discuss current issues and plans.

The Department of Defense has funded a term employee (3 to 5 years) for the purpose of developing a land exchange program that will be mutually beneficial to the Defense of Department and the Bureau. Any adjustments made with respect to our land tenure pattern will be in conformance with county government plans and will not adversely impact county services.

A public land sale program initiated after the Desert Plan, but consistent with it, on unclassified lands has been instrumental in transferring over 656 acres to the private sector. Since 1980 the Bureau has offered over 7,000 acres of public land for sale. The District has kept local governments advised of the disposal program and will continue to do so. The lands classification process, whether or not it involves the decision to transfer lands through the R&PP Act or the Public Sale Program, is one which requires the Bureau to allow local governments the opportunity to comment. The Bureau will continue to keep local governments informed with regard to our long-term management goals.

Recommendations - The Bureau should continue with current cooperative efforts to manage interspersed lands and to assure consistency with local plans.

M. WATER

Goal 1: Protect water rights necessary to carry out Bureau management programs.

Monitoring Techniques - Applications to appropriate water are sent to the Division of Water Rights of the California State Water Resources Control Board. These applications are for water sources which are important for Bureau programs. Protests are filed with the State of California on some water appropriation applications. Statements of diversion and use are for Public Water Reserves and are sent to the State of California to inform them of our use of these waters. Records of these Bureau actions are maintained in District files.

Progress - The California Desert District has submitted to the State of California 450 applications to appropriate water and filed six protests. Of these six, two were rejected, one was withdrawn by the applicant, one was accepted by the State, and one is still being processed. We have filed 47 statements of diversion and use.

Public Input - The public is generally not aware of our water rights activities.

Recommendations - Current progress is adequate.

Goal 2: Maintain an inventory of water sources

Monitoring Techniques - A standard form is completed for each water source examination. Data on the flow, condition, and use of the water source are recorded on these forms. These forms are filed and plotted on overlays in the District Office.

Progress - We have inventoried over 200 water sources.

Public Input - The public has indicated no awareness of this program.

Recommendations - Current progress is adequate.

Goal 3: Monitor water quality at a selected number of sites.

Monitoring Techniques - Most water quality data is collected by the U. S. Geological Survey (USGS). These data are published in USGS water resources data publication for California. The Bureau collects water quality data at four additional sites which are critical to fish and wildlife.

Progress - Approximately 12 ground water wells are sampled for water quality by the USGS. The Bureau samples surface water at Harper Dry Lake, Afton Canyon, Amargosa River, and Piute Creek.

Public Input - No public awareness has been indicated.

Recommendation - More expertise in evaluating water quality data is needed.

Water samples have been collected annually since 1979 from the Mojave River in Afton Canyon. The Canyon contains a popular campground and valuable wildlife habitat.

PART III

CONCLUSIONS AND GENERAL RECOMMENDATIONS

CONCLUSIONS

In the final analysis, the Desert Plan must be evaluated against its overall goals and the underlying direction given in Section 601 of the Federal Land Policy and Management Act. The Desert Plan was to provide for "management, use, development and protection of the public lands." Congress indicated no order of priority, but reemphasized that the principles of multiple-use were to be applied.

In its introduction, the Desert Plan states:

> "The goal of the Plan is to provide for the use of the public lands and resources of the California Desert Conservation Area, including economic, educational, scientific and recreational uses, in a manner which enhances wherever possible - and which does not diminish, on balance - the environmental, cultural and aesthetic values of the Desert and its future productivity."

The introductory statements stress that the CDCA is to be managed within a broader context of public land law. The Plan recognizes and addresses requirements for the protection of endangered species of plants and animals and of cultural resources, while providing for development of mineral resources, livestock grazing, and other consumptive uses directed by law.

The public was given a strong challenge which recognized that they have a stake in managing their lands and that no management program will be successful without their support, understanding, and voluntary compliance. The Plan also required programs of information, education, and volunteer services as components of implementation.

The individual resource evaluations (Part II) cite both successes and shortfalls. But underlying all has been a tremendous dedication on the part of both employees and the public toward making the Desert Plan an effective tool in carrying out public policy. Among the overall achievements are the following:

- The CDCA was organized into a single management entity, the California Desert District, to facilitate implementation and to assure desertwide consistency.

- The citizen advisory group concept which guided plan development was continued; the California District Advisory Council has met at least quarterly to provide continuing public input into Plan implementation and the approach to new issues.

- As a result of a thorough review each year, the public and the Bureau have proposed numerous changes to the Plan. Most have been small, but several have involved major adjustments to the Plan to reflect new issues or to reconsider land-use decisions based on implementation experience.

- While not reaching the projections envisioned, field staffing has increased over pre-Plan levels in most functions.

- Volunteerism has grown and has contributed directly and substantially to Plan implementation. It has manifested itself in many ways - in project work, in planning and research, and in ad hoc advisory committees relating to access.

- The State of California has made $4,360,000 available to the Bureau from the State Off-Highway Vehicle Grant Program; this has greatly enhanced user facilities on public lands.

There have also been changes in emphasis and new demands placed on the California Desert District. Most have been responsive to public needs and have demonstrated Bureau responsiveness. Among these efforts have been:

- Elimination of oil and gas lease application backlog.

- Reduction of backlog in lands cases, particularly Recreation and Public Purposes Act proposals by State and local governments.

- Processing of wind energy applications and overseeing development of this new energy source on public lands.

These reflect use of the Desert Plan and, while not inherent in it, used its data and guidelines in decision making.

In addition there have been at least two major Bureauwide organizational changes which have affected the California Desert District.

- Decentralization of the realty function so that all elements of the process from completion of casework through lease administration is now performed locally.

- Merger of the Minerals Management Service with the Bureau and the attendant assumption of lease administration for leasable minerals.

During the initial year (Fiscal Year 1981) of Plan implementation the California Desert District had a budget of $6,700,000 and a target organization of 200 persons. During recruitment toward the 200, the Fiscal Year 1982 budget reductions, especially in recreation, became apparent, and recruitment was halted at 173. Subsequent reductions resulted in a staffing level of about 150, where it has remained except for added Minerals staff after the Minerals Management Service merger. The budget has stabilized between $4,700,000 and $5,100,000.

Although the resultant personnel losses have slowed implementation of many aspects of the Plan, they have also led to creative procedures to speed actions and have eliminated many previously cumbersome internal processes, especially associated with review of Environmental Impact Statements. These new procedures have not reduced integrity or public participation, but rather have made the processes more efficient.

There are several conclusions that can be drawn from the preceding resource evaluations.

1. Implementation has generally been slower than planned. Even when action plans have been drawn up, funding levels have sometimes precluded purchase of supplies and materials.

2. Implementation has been highlighted by three areas which have received strong support from outside the Bureau:

   - Feral burro gathering - probably the largest success story in the desert - has been performed in close cooperation with Death Valley National Monument and China Lake Naval Weapons Center.

   - Recreation construction has been greatly augmented through the use of funds from the State Off-highway Vehicle Grant Program.

   - Several key resource protection and enhancement projects have been possible only because of extensive volunteer efforts.

3. Many activity plans and ACEC plans have prescribed increased ranger surveillance and patrol. Both the protection and public education aspects have been stressed. However, the number of rangers with law enforcement delegation has not increased since 1978.

4. Monitoring has been performed to the extent that some statistical information is available and records have been

kept. Some quantitative monitoring information is available, but the data collected generally lacks analysis.

Much monitoring data is in the perceptions of experienced staff members and individuals in the general public. These data need to be captured, either through written reports, oral reports, or photo-documentation.

Monitoring efforts by individual staff members have often provided information on a local basis without a methodology for systematically gathering and assembling the information.

5. Many positive things have happened to the public lands. The desert has not been closed as was predicted by many alarmists. Access has been maintained. Yet there have been access restrictions on some very important sites to protect resources from degradation. Maps and information brochures have been developed and distributed. Signs are being erected in the East Mojave National Scenic Area, and the Area has achieved national recognition. The public's attitude about the desert being a wasteland has truly begun to change. People regularly contact the Bureau for information regarding resources, access, and opportunities. Bureau rangers are fully integrated and accepted by their counterparts in other organizations.

6. Public demand casework continues to grow, and Bureau staff is highly responsive to it. But it, together with disposals of unclassified lands and lands in the Southern California Metro Project, has left little time for progress in both initiation of exchanges and other kinds of land acquisitions. Until additional funding is secured, either from appropriations or contributions by exchange proponents, little progress will be made. Progress is essential to achievment of the resource management goals in virtually every program and ultimately facilitates the public's use of desert resources.

GENERAL RECOMMENDATIONS

1. The Desert Plan called for an organization of 303 employees in Fiscal Year 1985. This figure would have provided on-the-ground presence, supervision, and monitoring envisioned by the Plan. But that figure clearly is now inconsistent with National goals and budget priorities. To resolve this paradox, we recommend the following:
   - Continue to encourage volunteer efforts toward accomplishing on-the-ground work, and expand volunteer efforts toward having on-site docents at key access points.
   - Participate fully in the BLM California Gift Catalog effort to encourage private donations toward needed equipment and supplies.
   - Continue to seek alternative funding sources, such as the State Off-Highway Vehicle fund, to provide on-site management and compliance.
   - Revise the District's model table of organization to provide for "optimum" shifting to accomplish goals should any funding changes occur or new funding sources emerge. If increases do occur, priorities must be toward on-the-ground staffing for monitoring and compliance.
   - Continue cooperative management agreements on areas and expand where feasible.
   - Continue to implement and expand the Visitor Information Outpost system, providing the public with land use information through a coordinated system of volunteers.

2. Volunteers have limitations in that they, like regular employees, require plans to implement, supervision, and equipment. Many projects are possible only on weekends, yet employee work schedules do not provide for Bureau presence except on an overtime or volunteer basis. Each Resource Area needs to develop, through seasonal employees or other sources, a volunteer coordinator/supervisor who can identify projects, recruit and supervise volunteers, and publicize the program; who works weekends and is not tied to "normal" schedules; and who can provide a presence without detracting from other work or on-the-ground presence.

3. As an already Congressionally designated National Conservation Area, the CDCA should develop a budget for its needs as a line item entity. Funding targets, while developed on a program-by-program basis, need to be pulled together and presented as a funding package for the region, in a manner which:
   - Shows on an integrated basis its total requirements.
   - Shows its individual program requirements and displays its multiple use needs, not just recreation management.
   - Assures balanced staffing.
   - Does not fund sub-areas within the CDCA at the expense of

others.
- Does not fund the CDCA needs at the expense of other public land areas within California.

4. The goal statements in the Desert Plan should be reviewed and, where necessary, rewritten in order to reduce redundancy and vagueness. Goals should clearly spell out what is achievable and measurable.

5. The California Desert District should develop a new budget projection commencing with Fiscal Year 1986 reflecting on-the-ground needs, current program thrusts, current policies, and projected national budget trends.

6. The Plan is still a viable document and statement of management goals for the public lands in the Desert. No specific major areas for amendment are identified. The annual review and amendment process functions well in making the Plan responsive to new and changing issues as well as providing a forum for public oversight. It should be continued.

   At the end of the 1985 review process (May 1986), the Plan should be republished in its entirety incorporating all changes, updates, clarifications, interpretations, and revised goals. No replanning effort is necessary, nor should it be undertaken.

7. There is need to place greater priority on resource monitoring and to revise the District's comprehensive monitoring plan prepared in 1981. Shortfalls are well documented in the resource evaluations (Part II). The maintenance of management effectiveness depends on sound data which can only be obtained through systematic monitoring.

APPENDIX

SUMMARY OF PUBLIC INPUT

Two letters were sent to the public requesting input for evaluation of the CDCA Plan and its implementation. A brief letter requesting comment was sent to the Desert Plan mailing list of 6,300 persons. and a longer letter which listed the goals of the various Desert Plan Resource Elements was sent to the mailing list of 250 organizations, public agencies, elected officials, and individuals who have been following the planning process for several years.

These letters resulted in 130 responses of varying detail presenting a wide range of opinion. Of these 130 responses, 21 were in response to the second, more detailed letter. All comments on Plan Elements were sent to the resource specialists at the District and Resource Area offices to incorporate public input into the evaluations.

Letters came from as far away as New England, but the majority were from California (69 percent), with 20 percent of the total from areas within the CDCA. Nineteen organizations responded, representing conservationists (13), miners and rockhounds (3), off-road vehicle recreationists (1), burro advocates (1), and homeowners (1). Twelve governmental agencies, five public utilities, and three mining companies also provided input.

Comments were separated into two groups - those of a general nature and those on specific Plan Elements and on trends in resource condition. The general comments addressed the following topics: 1) the Bureau's efforts to inform, involve, and listen to the public, 2) the Bureau's administration of the Plan, 3) suggestions for improving enforcement of the Plan; 4) opinions on the Plan itself, and 5) opinions on the amendment process.

Almost half of all respondents credited the Desert District with keeping them well informed about Plan implementation. Half of those noted that the Planning Newsletter was helpful.

> "Most definitely BLM's efforts to keep me informed have been very successful. I am impressed with the great effort shown, and do hope that your activities continue. This taxpayer is proud of the Bureau."

> "The Planning Newsletter and all other mailings your office has

> sent have been of great help and interest in keeping us informed. I always post your mailings on the bulletin board here in my shop and twenty or so people keep informed as to what is happening to our desert."

Several commentors declared that the Bureau is far superior to other public agencies in informing and involving the public and inviting them to be part of the action. There were a few complaints about the information process - meeting notices are received too late, material received is too complex, it is too difficult to get onto mailing lists or to have addresses changed. These comments show that the Desert District has gained much good will through its program to inform the public about matters relating to the Desert Plan, but there is still room for improvement.

In contrast to these points of view were a number of comments about the way in which the Desert District is implementing the Plan. The amendment process was said to be weakening the Plan by allowing increased off-road vehicle use, grazing, and mining and by eliminating wilderness. Lack of an effective monitoring system was noted, and the need for more rangers was emphasized. Several writers expressed the belief that lack of funding was responsible for the Bureau's failure to implement and enforce the Plan.

> "Our overall view was that the Desert Plan of 1980 was an intensely studied, well thought out compromise. However, the plan amendment process since that time has been a dismantling of the Desert Plan. In every significant element dealing with natural and cultural resources, the implementation of the desert plan has reduced protection."

> "The unfavorable amendments and resulting habitat destruction have occurred, it seems to me, because BLM has yielded to the pressures of such user groups as ORV enthusiasts, livestock grazers, hard-rock miners, and oil and gas companies."

> "I get the impression from answers I receive to questions that there has been very little monitoring of the resource. Monitoring needs to be done by specialists routinely. The resources of the CDCA are dynamic."

> "I appreciate the signs closing certain areas to ORV traffic. We do need more rangers for patrol to prevent damage, disseminate information and be visible."

> "It is evident that law enforcement agencies are spread too thin due to lack of funds."

> "BLM has not been adequately funded for the monitoring, research and enforcement programs essential to achieve its real

> conservation goals. we hope that these situations can be corrected in the near future."
>
> "We realize that you have been lacking much of the funds with which to implement many of the plans in the CDCA program, however you have managed in our opinion to do much of the work with the help of volunteers in conjunction with your own people. This, as a taxpayer, shows us that the CDD will get the job done."

One rockhounding organization proposed a change in the annual amendment procedure: any application which is reviewed and rejected should not be accepted for review again for a period of three years so that the annual review is limited to current, legitimate issues.

The Plan received several positive comments. The inventory data acquired during plan preparation was held as extremely valuable to both the general public and other governmental agencies. The concept of multiple-use classes was seen to be an excellent means of separating diverse groups with conflicting interests. Some residents of scattered housing areas said the guidelines for motorized-vehicle use had helped to prevent off-road vehicle use in their front yards. The Plan was seen as a balanced compromise between use and protection.

> "The amount of data produced by the proceedings of plan development has been astounding in its enormity, to me, to the extent where I have not been able to study and assimilate all of the information in proper detail. I have learned more about the delicacy of the desert and cautions to be exercised to protect that delicacy."
>
> "The Plan is a valuable source of resource data that my airspace manager and environmental engineer use in evaluating impacts of aircraft operations throughout the California desert."
>
> "There is no way that the off-road racer can reconcile his motives and activities with those of the amateur zoologist or archaeologist who often hates to see one leaf destroyed or one rut created in the desert. The only possible way to keep these groups happy is to divide the desert off into multiple areas for specific use."
>
> "By setting the guidelines for this area (El Mirage) the irresponsible cross country motorcycle and dune buggy riding is now practically non-existent."

Twenty-one respondents congratulated the Desert District for doing a good job in managing the Caifornia Desert and administering the Desert Plan. One commented that there was a fair balance of uses and conservation and that the needs of both the public and the desert were being met.

> "The California Desert District is to be commended for a job well done. You did it right - at each step you notified everyone what you were doing - you listened - you evaluated - you compromised - but you kept going. All jackasses make a lot of noise, but you kept cool. Congratulations! You cannot satisfy everyone but most of us are delighted with the results of efforts. My great-great-grandchildren will also thank you."
>
> "It is my observation that the general public, and that includes all of us, at all levels of interest and involvement are well served by your effort to manage an extremely difficult land mass."
>
> "I know it is a monumental job for BLM but keep up the good work you are trying to do."
>
> "I followed all the amendments and felt they were always for the betterment of the plan. I also feel you did a far better job than anyone expected."
>
> "With your plan our freedom to use OUR land has been removed. That is sad. You are yet another agency and Bureau who has taken over another of our freedoms."
>
> "It upsets me greatly to see your bureau continue to close the prime camping areas to the public use. I personally feel that the plan is a failure and you are denying the public the right to enjoy the wilds of our public land."

Wildlife, minerals, recreation, and livestock grazing were mentioned in 12 to 14 letters each. Wild horses and burros, land tenure adjustment, wilderness, vegetation, energy and utility corridors, and water, air, and soils received progressively fewer reponses.

The major wildlife concern was endangerment of the desert tortoise and degradation of its habitat as a result of livestock grazing, and off-road vehicles. The lack of monitoring, personnel, and a Bureau commitment was another concern. Bighorn sheep, other species, and riparian habitat were believed to be in need of better management.

Comments on minerals were largely in favor of mineral development. Mining interests claimed that the California Desert District fails to give mineral resource development the importance it warrants when formulating ACEC plans and when evaluating impacts of various proposed actions on desert resources.

Recreation comments emphasized the need for more education of desert visitors on the uses allowed in different parts of the desert. Some respondents felt that the Bureau has favored consumptive recreation while diminishing opportunities for passive, non-consumptive recreation. Another complaint was that the Bureau does nothing to minimize conflicts among recreationists and has not taken advantage of offers by conflicting user groups to participate in conflict-resolution sessions. There was support for and opposition to competitive corridors. Rockhounds complained that mining claimants have closed to them one of their favorite areas.

Most comments on range management expressed the view that Bureau lands are overgrazed, riparian habitats and desert wild flowers are severely impacted, and that grazing fees are so low that the public sector is subsidizing the industry. Several commentors were interested primarily in the Western Mojave and the effect of grazing on the desert tortoise and on riparian habitats in the Sierra foothills.

With one exception, all respondents who commented on wild horses and burros were in agreement with Bureau policies. Several complimented the Bureau on a job well done. The exception was WHOA! (Wild Horse Organized Assistance, Inc.), which wanted further research on the role of "Equus" in the desert ecosystem.

Most comments on land tenure adjustment addressed specific areas. Two military bases complimented the Bureau on good coordination, while Kern County planners wanted better coordination on land disposals.

Respondents felt there had been a resistance to wilderness by the Bureau, particularly since the present administration took over. These commentors wanted to stop elimination of any more recommended wilderness areas. One writer said that there are already too many acres in wilderness.

The few people who commented on vegetation claimed that grazing, motorcycle racing, and irresponsible mining are threats to desert flora.

Energy and utility corridors received only a few comments. The Desert District was complimented for its decision on wind farms on Table Mountain in San Diego County but criticized for the appearance of the Tehachapi wind area. The recent proliferation of proposals for microwave communication sites was noted along with the need to coordinate with the U. S. Forest Service, the National Park Service, and local governments in acquiring the technical knowledge needed to set policies on siting these facilities.

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